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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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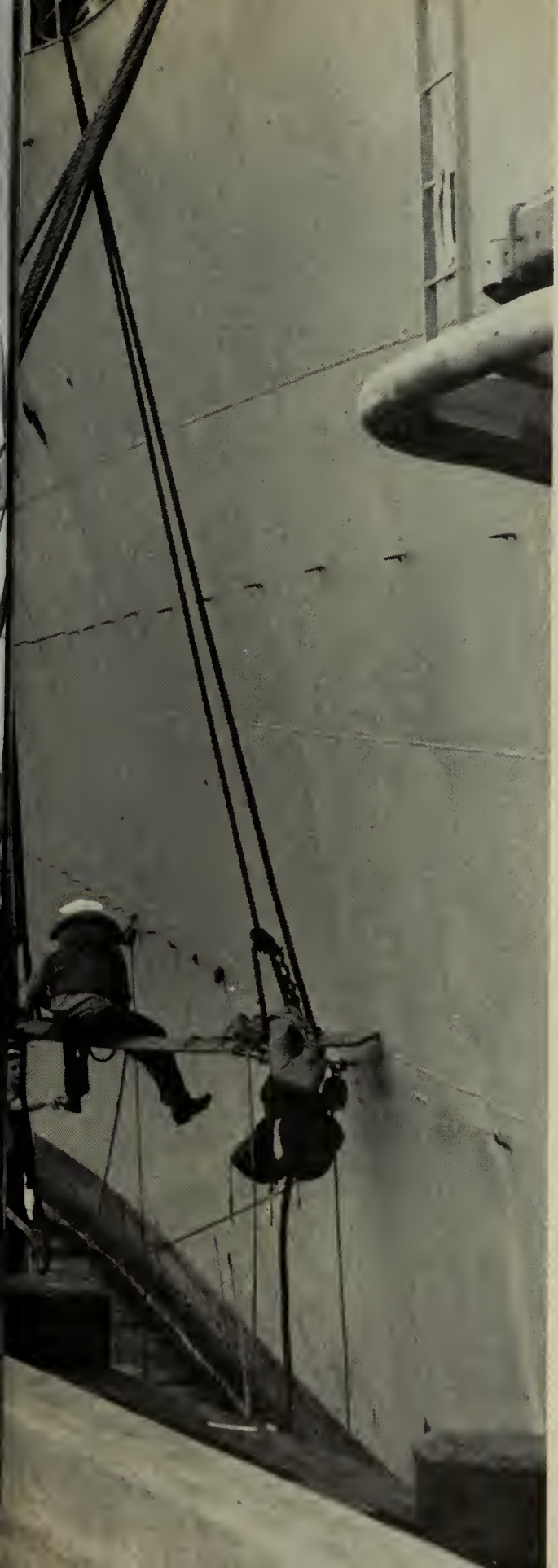

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JANUARY 1956 Navpers-O NUMBER 467

VICE ADMIRAL JAMES L. HOLLOWAY, Jr., USN
The Chief of Naval Personnel
REAR ADMIRAL MURR E. ARNOLD, USN
The Deputy Chief of Naval Personnel
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Assistant Chief for Morale Services

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• FRONT COVER: SIGNALMEN must make rapid conversation. QMSN Valderotti on board USS *Sierra* (AD 18) keeps his semaphore vocabulary in shape by talking to destroyers that come alongside for repairs.

• AT LEFT: UNDER A GRAY SKY AT NORFOLK NAVY YARD. Side cleaners secure scaffold to pad eye on USS *Tidewater* (AD 31) in foreground, as crew of USS *Everglades* (AD 24) turns to for maintenance and repair job on USS *Ross* (DD 563) and two other destroyers.

• CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

MOVING IN FOR THE PUSH, *USS Neoga* (YTB 263) approaches barge. *Below:* Flexing her muscles, *USS Neoga* nudges *USS Hancock* (CVA 19) into channel.

Sailors Pus

THE TUGBOAT SKIPPER sounded a short blast on the whistle, gave the wheel a quick spin and shouted an order to a deckhand—all at the same instant. "Sure," he said, smiling, "operating a tug is just about like driving a car."

"Driving" a 110-foot-long tug and taking care of his eight-man crew are the principle duties of Arthur Cross, BMC, USN, craftmaster of the Pearl Harbor-based USS *Neoga* (YTB 263).

Making log entries, assuring himself that there are enough supplies aboard, and keeping track of commuted rations are a few of the couple dozen other incidental duties that come with the job of commanding one of the smallest, hardest working ships in the U. S. Navy.

"We're small, but we adhere to battleship standards," the chief proudly pointed out as he displayed the tug's immaculate engineroom and gleaming galley. "Actually, we're just one big happy family."

That description might well be an understatement aboard *Neoga*. During the past year, of six men completing their first enlistments, three have shipped over, two plan to re-up and one is accepting a discharge.

The family atmosphere is most

Navy Around

evident when the men hash over any problems or complaints before eating their family-style meal on plates in the one-table "mess hall," then wash and dry their own dishes to relieve the cook's workload. Meals are taken together at set times and although breakfast is cooked to order, no one eats after 0630.

Everything except bakery goods is prepared aboard the tug by Robert V. Collins, CS2, USN, of Boston, Mass. Approximately eight gallons of milk and four loaves of bread are used daily.

The six-rack crew's quarters are scarcely larger than the galley, but with four men living ashore, berthing creates no problem. Cross and his chief engineer, Richard C. Frey, EN2, USN, of Long Beach, Calif., have individual quarters in the bow of the craft that might make some shipboard officers envious.

Such ideal living conditions could make tugboating sound like a snap without taking into consideration the work entailed on a ship its size.

Despite her displacement of a scant 529 tons, *Neoga* pushes and pulls some of the Navy's largest men-of-war around the harbor, her 9½-foot-long single screw turned by an engine shaft comparable in size to that of a cruiser. Maneuvering quickly about the water with a 13-foot-high rudder, she works about 100 ships a month and averages eight jobs a day.

Moving personnel barges or other powerless craft keeps the crew of *Neoga* and six other Pearl Harbor-based YTBs (named for Indian chiefs) busy, sometimes late into the night. An occasional trip to Honolulu harbor or a short voyage a few miles at sea to save a larger ship an unnecessary trip into the harbor adds variety to the routine.

TUG's SKIPPER, Chief Boatswain's Mate Arthur Cross, USN, mans the wheel keeping a watchful eye to stern as *Neoga* pulls carrier away from pier.

Every sixth day, the ship is on a 24-hour-alert for emergency tow duties and use as a fireboat, with her four nozzles capable of pumping about 4000 gallons of water a minute.

Handling harbor craft has been the job of Chief Cross for seven years, the last five spent in tugboats. He was on board the battleship *California* during the 7 Dec 1941 attack on Pearl Harbor and is spending his second tour as craftsmaster of *Neoga*, churning the waters of once-bustling "battleship row" in command of his own ship.

His genuine North Carolina grin and an invitation to have a cup of coffee are trademarks of the ship. A few fortunate visitors even enjoy a home-cooked meal aboard *Neoga*.

"The only thing we ask," reminded the chief as he scraped his plate and slipped it into the hot dishwater, "is that you wash your own dishes."

And who can argue with a skipper that "messcooks" himself?

—Dale Lytton, JO3, USN

LINE IS SECURED TO *USS Hancock's* pad-eye by tug's crewman. *Right:* Shipmates enjoy their family-style meal.

SAILORS FROM *USS INTREPID* visit Roman forum. *Below:* Italian watermelon is sampled in local cafe.

NAVYMEN TAKE TO LAND for look at historic Appian Way on Rome liberty.

Roman Holiday — Navy Style

IN DAYS OF YORE it was said that "All roads lead to Rome." Today sailors find that sea duty often leads to liberty in this ancient Italian city. So it was with Navymen and Reservists serving a three-week training cruise on board USS *Intrepid* (CVA 11) assigned to the Sixth Fleet in the Med.

While the large carrier rested at anchor off Naples new and old salts took advantage of a break in training routine, and liberty in the "Eternal City" was enjoyed by all.

Three days were spent touring the capital of Italy which is nearly 3000 years old. Highlights of the Navy-sponsored tour were visits to St. Peter's Cathedral, the largest church in the world, ruins of the Colosseum, and the old Roman Forum.

Also enjoyed by the Navymen were the numerous artistic fountains found throughout the city as well as a walk down the Appian Way. They were surprised to find watermelon a popular dish in the colorful "trattorias" where they paused for refreshments. Perhaps the most unusual of sights in Rome was not any one thing they saw but the strange contrast of the ruins of a past civilization rising in the heart of a modern city.

A look at the ship's charts showed Rome on the same latitude with New York City, but it has a mild year-around climate, due to the warm waters of the Med, some 17 miles away to the west.

As the carrier men took a last look at the famed city with St. Peter's looming dome and the Apennine mountains watching over it, each sailor felt a little wiser and a little more salty for having seen more of the world firsthand.

TWO ON TOUR of Rome pose for photo by old fountain. *Right:* Ruins of Colosseum was good spot for cameras.

NAVY WIVES GET firsthand look at what hubby does at sea during 'Wive's Cruise' of *USS Shangri La* (CVA 38).
—San Diego Union Staff Photo

Navy Wives Get a Taste of Sea Duty

All Hands staff members spend part of each day going through a mass of newspapers and magazines, seeking ideas for stories you'll be interested in. That's how we came across the piece below, written by Sue Seay of "The San Diego Union," a daily newspaper published by the Union-Tribune Publishing Company, in San Diego.

Written from a woman's point of view, this story of a day abroad a Navy carrier impressed us as being so unusual that we obtained permission from the copyright owners to pass it along to you.

At the same time several additional reports arrived concerning Navy wives, including more one-day tours of sea duty in carriers, a family dinner in a submarine — and one about a Navy Wives Day idea which we like. Details may be found on page 7.

Here is Reporter Seay's account:

The Navy gave 300 ladies a taste of sea duty yesterday.

Disproving the age-old sailor's superstition of women being a jinx aboard ship, the carrier *Shangri La* sailed to sea with wives jamming its gunwales.

The experimental Crew Wives' Cruise idea was originated by the skipper, CAPT Roscoe L. Newman, USN, and approved by the Chief of Naval Operations.

And according to members of the weary group of "maiden voyagers" put ashore late yesterday afternoon after six hours at sea, the whole idea was "well done!"

After logging in on board the modernized carrier (with hurricane bow and angled flight deck) at North Island, the wives of both officer and enlisted personnel were assembled on the huge hangar deck. The VIPs (their official title for the day) were greeted by large signs warning them to "Beware of Propellers and Jet Blasts" and smaller ones hung on hatches directing them to the "Ladies Powder Room."

Forewarned, the wives were sensibly attired (this reporter was not). They came in slacks, pedalpushers, sweaters and low heeled shoes.

To familiarize the wives with their husbands' job and the significance of each man's duties, the visitors were allowed to mill around the ship after their arrival, with husbands acting as guides.

For the day nautical language and technical terms were broken down for feminine understanding. To the shrill blasts from the boatswain's pipe the ladies were told the ship was "the length of three football fields, without the end zones," and "too wide to go through the Panama Canal."

The huge carrier was nosed from its North Island mooring by tiny tugs at about 11 a.m. to the tune of "Anchors Aweigh" played by the 14-piece ship's band (played nicely on second-hand instruments). While most of the ship's company stood the traditional flight-deck parade, the wives watched their departure from gun-tabs and hangar-deck curtains.

CARRIER'S SKIPPER, CAPT R. L. Newman, USN, who originated cruise idea shows his wife the bridge. *Right:* Navy pilot puts wife in 'driver's seat.'
—San Diego Union Staff Photos

LADY'S DAY VISITORS on board *USS Kearsage* (CVA 33) get chance to take the wheel while crew members of the carrier explain operation of ship's gear.

FAMILIES OF NAVYMEN in *USS McKean* (DDR 784) join mess lines during visit. *Below:* Navy wives bring clothes to donate to orphans on visit to *USS Wahoo.*

From these vantage points they also watched much smaller destroyers entering port, the Coronado islands, several submarines and another carrier slip by.

Among the many things that caught the female eye were the monstrous windshield wipers on the glass enclosure of the admiral's and captain's bridge.

They were delighted to find an escalator which is used to transport pilots laden with 50 or 60 pounds of flight gears and fascinated by the variety of color used for identification purposes aboard the ship. There were crewmen in bright blue jerseys, others in red, yellow and green. There were bright buttons and lights of all hues in the Combat Information Center; red, yellow and green ammunition cases in the pointed nose of the F9F jets on board and many watched, wonderingly, as one young pilot stuffed a bright red scarf in the top of his flight boots before taking off. There were also pastel-colored flowers on the tables for luncheon.

The Navymen and their wives ate together at noon. Served buffet style, they ate fried shrimp, meat loaf, creamed corn, mashed potatoes, pumpkin pie, cherry punch, salads and rolls for lunch.

They visited the galley (where 800 loaves of bread are baked daily), the barber, tailor and cobbler shops and were shown the berthing compartments or staterooms their husbands occupy.

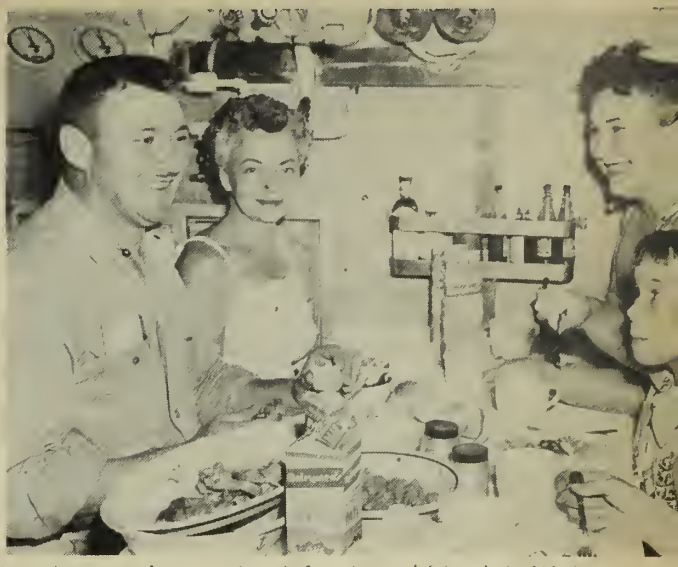
And all the while they grinned proudly at the wonders of the man's world on the warship.

The biggest thrill of the all-day trip came after lunch. The air group aboard performed what was "a routine daily air operation." But for the wives it was their biggest personal thrill.

They hung from every nook and cranny to watch the show. Four *Cougar* jets catapulted into space and then returned to land touch-and-go, "follow the leader" fashion.

They all got puffs of stack gas in their faces and their hair was blown to pieces. They donned bulky flight jackets and stuffed cotton in their ears and climbed a hundred ladders up and down.

Completely exhausted, they were taken ashore in longboats at 5 p.m. after "the most thrilling experience in my life" . . . never more to wonder about "just what my husband does aboard ship."



WIVES WATCH planes take off from *Kearsarge*. *Right:* R. H. Moody, ENC, has meal with family and friends in *Wahoo*.

Ships 'Check Out' the Ladies on Crews' Jobs

THE AVERAGE NAVY WIFE knows too little about her husband's job and responsibilities. In a local Navy wives poll, this was the finding of the CO of Attack Squadron 86 at Oceana, Va., and to remedy this situation VA 86 inaugurated a Navy Wives Day.

The families of squadron personnel — wives, mothers, sisters and youngsters—were invited to participate in a full dress program which included routine Navy activities such as personnel inspection and training flights, in addition to special exhibits, refreshments, and a session at which the squadron skipper, CDR C. W. Gates, Jr., USN, answered questions fired at him by the wives.

A number drawn from the Top Hat, emblem of VA 86, selected an enlisted man's mother as squadron "Lady of the Day," to accompany the skipper on his inspection tour. When the planes took to the air, public address system speakers relayed the radio transmissions to the families watching the operation. To add a fillip to the performance, the planes went through a mock air attack, shooting down an imaginary enemy before winding up with a high-speed run over the Oceana field. Ground exhibits included various types of aircraft, engines, shop spaces and movies of typical operations.

By the time a "better half" had reclaimed her small fry from the portable nursery, she had learned just what part her man plays in the squadron's operation—and had plenty of "talking points" when she wanted to do a bit of bragging about her husband's job.

Although they didn't use the Navy Wives Day designation, other Fleet units have also picked up the idea of "orienting" Navy wives. USS *Kearsarge* (CVA 33) and *Princeton* (CVS 37) have both held a "Ladies Day" on the West Coast. *Kearsarge*, for instance, logged in 365 wives for a day of routine training. The skipper was temporarily "relieved" of his command as the visiting ladies took turns issuing orders and steering the flattop. Photographers' wives took over the job of "shooting" aircraft being launched and recovered. Pilots waiting to take off or land heard female voices giving them instructions by radio. Heads wheeled when the ship's giant bullhorn speaker gave out with a small, high-pitched voice passing the familiar "White Flag . . . Launch Aircraft." Each wife had her mate alongside, explaining how each step of his job must be done.

USS *McKean* (DDR 784), on the West Coast, and USS *Wahoo*, in Honolulu, both held open house for the families of crew members before departing for Far Eastern duty. *McKean's* men offered their families a demonstration of anchoring and main battery control operation, and a chance to see how the Navyman works and lives aboard ship. *Wahoo*, in addition, served up one of those famous submarine service meals too.

Although the locations and the names of these get-togethers were different, they all had the same purpose: To give the Navyman's family and dependents a better understanding of his living and working conditions, and an insight into the importance of his job to the Navy and to the nation — and to his family.

SAILORS escort their wives on tour of ship during open house planned to acquaint them with jobs Navymen do.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **EXTENSION AND REENLISTMENT BONUS**—Many Navymen, when they receive transfer orders requiring an agreement to extend their enlistment, are refusing such orders. They are under the impression that execution of such an agreement would mean that they would not receive full monetary reenlistment benefits until their enlistment extension had expired.

They're wrong. Article C1407(8)(b) of the *BuPers Manual* authorizes cancellation of an agreement to extend, provided the individual reenlists on the effective date of the extension. You might note that the effective date of any extension is the day after the enlistment would normally have expired. However, once the extension has become operative, you must complete your period of extension.

Here's an example which might clarify the point: Jones decides to obligate for 36 months in order to receive attaché duty in France. Since his enlistment expires on 2 Apr 1956, he must agree to extend his enlistment until 2 Apr 1959 in order to accept his orders. Instead of allowing his three-year extension to become operative on 3 Apr 1956, Jones may reenlist on this date and become eligible for all monetary benefits.

• **OFFICER DATA CARDS**—All officers and enlisted aviation pilots are reminded that up-to-date Officer Data Cards (Form NavPers 340) are the primary means of indicating a personal preference for duty. These cards were specifically designed to assist in the detailing of officer personnel, and they provide the Bureau's detail officers with their only ready reference file of personal preferences and personal problems which deserve consideration in making assignments.

Up to date Officer Data Cards are *required* to be submitted on 1 August of each year; but Article B-2209 of *BuPers Manual* points out that revised data cards should be forwarded whenever a change occurs which might affect your detailing. Such changes include changes in duty preference, preferred date of detachment, changes in dependency conditions, changes of address or telephone number, additional educational data or schools completed, etc.

Complete instructions for filling in and forwarding Officer Data Cards may be found in the above mentioned article of *BuPers Manual.*

• **NATURALIZATION** — Since the McCarran Act (Immigration and Nationality Act of 1952) came into effect, Filipinos and other aliens in the naval service who were eligible for naturalization before 24 Dec 1952 but who were unable or failed to file petitions for naturalization before that date, have been unable to become naturalized United States citizens.

In a recent decision, the United States Court of Appeals for the Ninth Circuit decided that members of the naval service who were eligible for naturalization by virtue of honorable service in the U. S. Navy before the effective date (24 Dec 1952) of the McCarran Act did not lose this right, but could still become naturalized. This decision has now become final.

All Filipinos (and other aliens) with three years' or more service *before* December 1952 who wish to become United States citizens should file applications at the nearest District Office of Immigration and Naturalization.

If you need help in submitting your request, address a letter stating the facts to the International Law Division of the Judge Advocate General through your chain of command.

• **NO SPECIAL DELIVERY** — Judging from the volume of special delivery mail received at naval postal centers, many Navymen and their correspondents aren't aware that no special delivery service is provided at naval and other military activities.

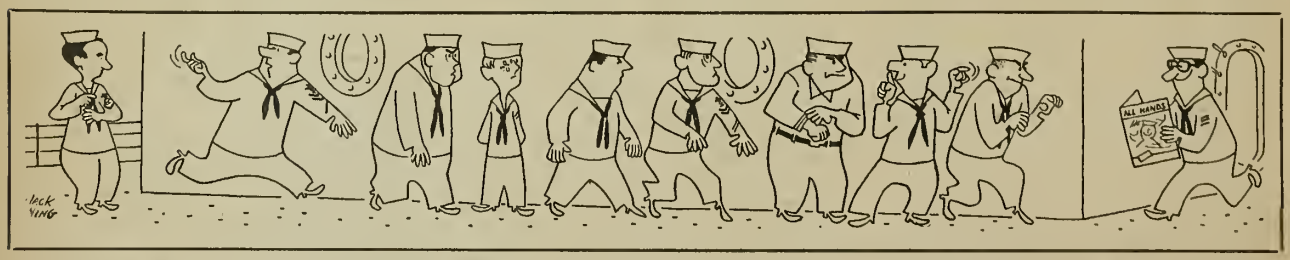
It is suggested that you pass the word to your wife, mother and other correspondents to save their money.

The *U. S. Navy Postal Instructions* and the *U. S. Postal Manual* state that no special delivery service will be performed by military personnel. Special delivery of a letter or package aboard ship and at most naval activities is impractible and would not appreciably speed delivery, is the reason given.

Unless you live ashore and receive your mail direct from the postman, it's a good idea to inform your correspondents that special delivery mail will receive only the regular service — which is excellent.

• **NEW MOP DEADLINE**—Navymen and veterans discharged or released from active service under honorable conditions between 27 Jun 1950 and 16 Jul 1952 still have seven months to claim mustering-out pay. The former deadline of 16 Jul 1954 for filing claims has been extended to 16 Jul 1956 by Public Law 180, 84th Congress.

If your claim was disallowed earlier because the original time limit had expired, you may resubmit your



PASS THIS COPY ON — Good news is just around the corner, at least for these nine men.

application. Claims, including those sent in for the second time, should be accompanied by the original Department of Defense Form 214 (Report of Separation).

Navymen should send claims to Navy Finance Center, Cleveland, Ohio. Marine Corps personnel claims should be directed to Commandant, Marine Corps, Code DGK, Headquarters, Washington, D. C.

• **OFFICER RETIREMENT** — Commissioned officers and warrant officers of the Regular Navy and Marine Corps, with 20 or more years' service, may now voluntarily request retirement. This applies to permanent regular officers and enlisted personnel serving under temporary appointment as commisisoned officers.

Creditable service includes active duty in the Navy, Marine Corps, Army, Air Force or Coast Guard or the Reserve components of any of these branches of service, including active duty for training.

At least ten years of this time shall be active commissioned service for other than warrant and chief warrant officers.

Requests for voluntary retirement received from officers with 20 or more years' service will be considered on a basis of the over-all needs of the service and the merits of the individual case. Favorable consideration will normally be given to individuals whose case is covered by one or more of the following criteria:

• Officers, other than flag and general officers, with 30 years' service.

• Flag and general officers with 30 years' service and with at least five years' service as a flag or general officer.

• Captains and colonels with at least five years' service in grade.

• Officers who have twice failed selection for promotion.

• Officers whose assignability is limited, such as those who are manifestly overage in grade, whose general health has deteriorated or whose continued service is not, due to conditions beyond their control, clearly consistent with the interests of national security.

• Officers having hardship of a compassionate or financial nature whose retirement would definitely alleviate serious personal problems.

In addition, consideration will be given to requests for retirement by officers who do not meet any of the above criteria, and approval may be given under circumstances that are clearly not contrary to the best interests of the service.

Requests for retirement shall be addressed to the Secretary of the Navy via the chain of command and the Chief of Naval Personnel or the Commandant of the Marine Corps, as appropriate. The date of submission of request should be at least three months in advance of the desired date of retirement.

• **NAVY ANECDOTE CONTEST** — If you've been in the Navy long enough to see your first pay day, you undoubtedly know one or more stories about life in this Navy.

If you do, here's your chance to tell them. A "Life In This Navy" contest is being sponsored by the Bureau of Naval Personnel for all servicemen and their dependents.

Rules governing this contest are:

1. The anecdote must be true, not formerly published, and based upon the writer's own experience. (The dictionary defines an anecdote as: "A narrative, usually brief, of an incident or event of curious interest, often biographical.")

2. It must not be longer than 250 words.

3. It must be typewritten, and on one sheet of paper only.

4. It should show an appealing or humorous sidelight on life in the Navy.

5. The entry must be mailed to the Chief of Naval Personnel, Attn: Pers G-11, Navy Department, Washington 25, D. C., by 1 Mar 1956.

You must include the following information on the reverse side of your entry: Name, rate or rank, duty station, hometown, and hometown newspapers. Include also the following statement:

"I certify that this anecdote is true and unpublished, and is from my own experience."

..... (Signature.

If one or more of your dependents submit an entry, have them sign their names and give your name as the Navyman of whom they are a dependent.)

"All claims to the attached entry are waived and I understand that the Department of the Navy may use it as desired."

..... (Signature)

"Forwarded."

..... (Sigature of Special Services officer or other officer.)

QUIZ AWEIGH

What's your Naval I.Q.? One way to find out is to turn to the Quiz Aweigh page each month. You'll know whether you're up to date or slipping, by comparing your answers with the correct ones on page 55.

1. You're an aerial observer. You sight the ship above and identify it as a (a) battleship (b) large cruiser (c) light cruiser.

2. This ship is one of the three in the *Alaska* Class of 1940, all of which are presently in mothballs. It is the (a) USS *Guam* (CB 2) (b) USS *Los Angeles* (CA 135) (c) USS *Rochester* (CA 124).

3. The wheel of a ship on a rating badge designates a (a) helmsman (b) ship's navigator (c) quartermaster.

4. The micrometer and gear on the right designates (a) machinery repairman (b) damage controlman (c) instrumentman.

5. This is the XP6M-Seamaster. When it completes final trials and is accepted by the Navy, it will become (a) the Navy's first multi-jet aircraft used on carriers (b) the Navy's first multi-jet seaplane (c) a replacement for the P2V *Neptune*.

6. This aircraft is expected to cruise at 40,000 feet at speeds of over (a) 400 mph (b) 500 mph (c) 600 mph.

NADC's Invisible Stamp Is in the Air

Everything That Navy Flies Has Been Influenced By Laboratory Work at NADC

IF YOU HAVE NEVER heard of the Navy's Air Development Center at Johnsville, Pa., it's probably not your fault. For good reasons the important work done by Navymen and scientists behind the well guarded barbed wire fences has remained anonymous.

First, a great deal of their work is of a highly classified nature. Another reason is that the end results of a project completed at NADC are not identifiable as originating at Johnsville. Take, for example, a new type sonobuoy which has been prototyped and tested by the Air Development Center. It will have passed through many other hands before it reaches the Fleet.

The Center, located on 751 acres with modern buildings and an airfield, has its mission divided into seven highly technical fields of aeronautical development. Each field has been designated a laboratory and is assigned its own particular duty.

The pioneer laboratory of NADC is the *Engineering and Development Services Department.* Here Navy scientists and skilled bluejackets work with top civilian authorities in designing and developing guided missiles as well as conducting laboratory and flight investigations to determine their performance. EDSD is equipped with a complete fabrication shop manned by "do it yourself" experts who are capable of building anything from a delicate instrument to a complete aircraft.

One of this lab's projects helped pound the enemy during the Korean conflict. It was a radio controlled aircraft, employing television guidance systems, that could carry 1000-pound bombs. These unique assault weapons flew many successful missions against the enemy in Korea.

New types of Navy planes need new or improved "nervous systems" in order to get the most out of them. Navymen of the *Aeronautical Electronic and Electrical Laboratory* are the ones that supply this vital service by providing better "brains" for the complicated supersonic planes of today and tomorrow. Much of the preliminary study and engineering in radar and radio was performed by this group. Research here has also led to the development of the new radar-equipped early warning airplanes. AEEL has also made great progress in developing air-borne anti-submarine detection devices.

The *Aviation Armanent Laboratory* puts the fighting punch into the Navy's latest fighter planes and other aircraft. As planes have become faster and higher flying, the problem of guns has become more acute.

Gun mounting is a problem with each new plane. Guns must be located where their weight will not affect the flight characteristics of the plane and they must maintain an effective field of fire—explosive gasses from firing of guns must be gotten rid of—and lubricants have to be developed that will allow the gun to operate at extreme temperatures.

AAL must make sure that bomb

HUMAN CENTRIFUGE at Naval Air Development Center tests man's reaction to 'G,' provides data to protect airmen.

and rocket racks work reliably so that time and effort of carrying them to the target is not wasted. These and many more problems related to the firepower of the Navy's latest planes are the problems daily worked out by Navymen of this lab.

Solving one problem often creates another. In fact, several of the NADC laboratories were established for just this reason. For example, the various laboratories in their investigations and developments were piling up statistics and calculations way beyond the ability of the human brain or slide rule.

To handle this backlog of facts and figures in the most expedient manner, the *Analytical and Computer Department* was established.

An electronic brain was installed to assist in solving the complicated problems arising in guided missile study. This computer, referred to as "Typhoon," is saving literally years of valuable experimental time by simulating flight conditions of these high speed weapons. In addition, these dry runs through the electronic cells of "Typhoon" save many dollars that actual test flying of experimental missiles would cost.

Another problem evolving from man's ability to create faster flying machines is handled by the *Aviation Medical Acceleration Laboratory*. Its job is to determine what the new high speeds will do to the Navyman himself and to develop means for him to keep up physically with the latest supersonic speed record.

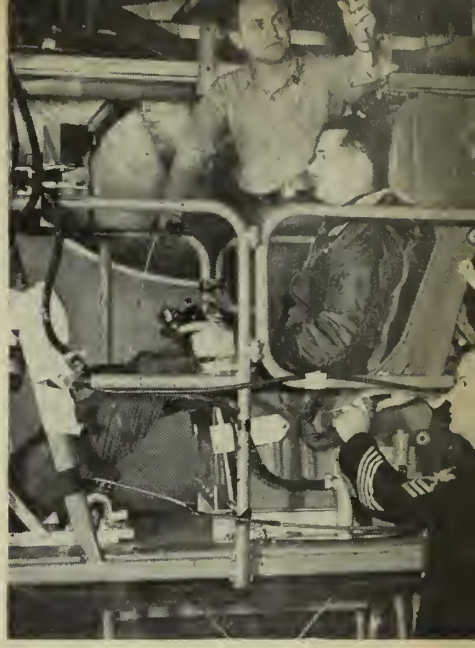
The investigation into what a man can take in the way of rapid-acceleration, short stops and plunging dives began with a study of how much "G" a pilot could take. For such tests AMAL has the largest human centrifuge in the world.

Resembling an over grown "loop-the-plane" carnival ride, the machine is powered by a giant 4000 hp electric motor which swings a 50-foot arm at speeds that can produce a "G" force of 40. Inside a modernistic "roundhouse" Navy volunteers, including flight surgeons and engineers, are rotated at high speeds in a gondola at the end of the centrifuge's arm while their reactions are recorded by intricate machinery.

A "rocket ship" plays a role in this lab. Problems being worked on have included experiments in specially designed low pressure chambers and tests on physiological and human engineering aspects of rocket flying. These problems are worked out in the cockpit of the simulated rocket craft, consisting of controls, seat, and four rocket motors, secured by four long legs.

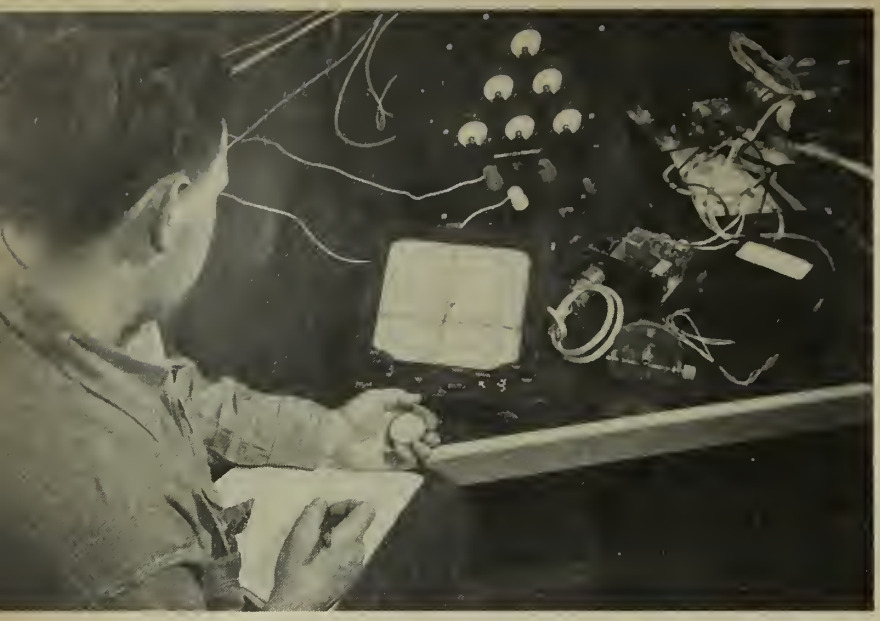
NADC Johnsville faced another series of problems. As planes began to pierce the supersonic barrier and shutter speeds became too slow to keep up with the aircraft, the Navy had to pay special attention to photographic operations. To meet the difficulties created by high speeds and altitudes the *Aeronautical Photographic Experimental Laboratory* was set up. APEL does research and evaluation on photographic equipment, systems and devices used to interpret the valuable aerial "portraits" brought back by the new jet patrol planes.

A recently completed project has provided the Fleet photo units with a high shutter speed, rapid sequence camera that will take pictures at low

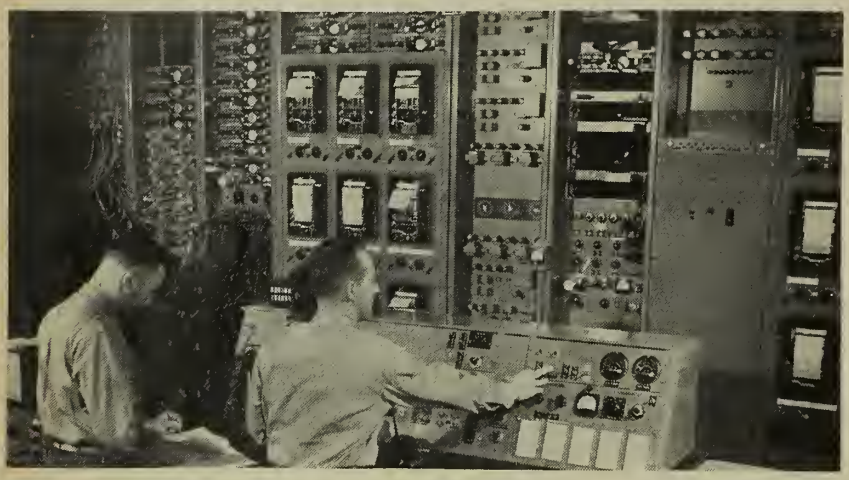


NAVY volunteer is readied for ride at end of centrifuge's arm. Instruments record his battle against gravity's pull.

HIGH SPEED MOTION pictures are taken of new type camera shutter by P. A. Jacobs, PH2. *Below:* Navymen test instruments installed in drone for testing.



ACCURACY OF PILOT'S automatic dead reckoning equipment is tested in instrument lab. *Below:* Navymen run problem through center's electronic brain.



altitudes and jet-like speeds.

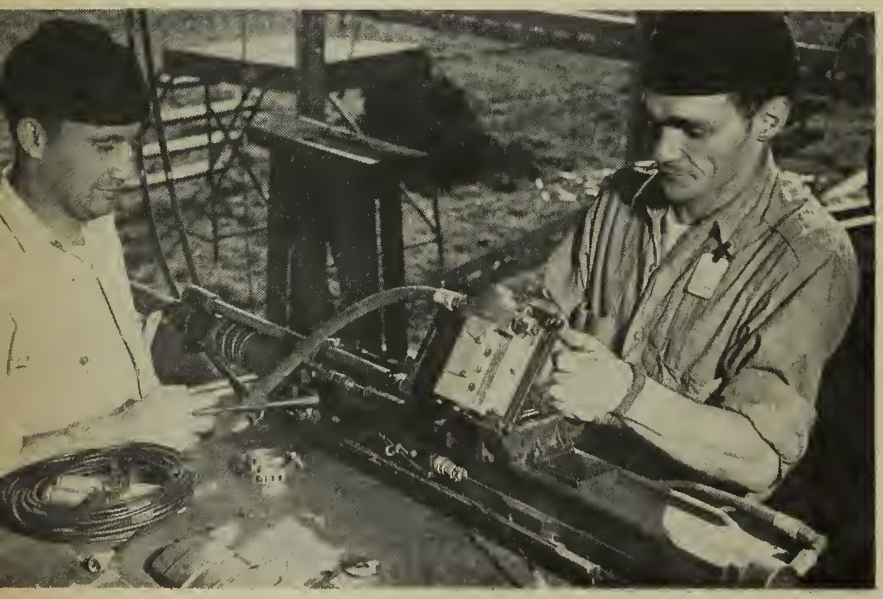
The *Aeronautical Instrument Laboratory* was set up to counteract somewhat the complexities in instrument controls resulting from highly specialized equipment.

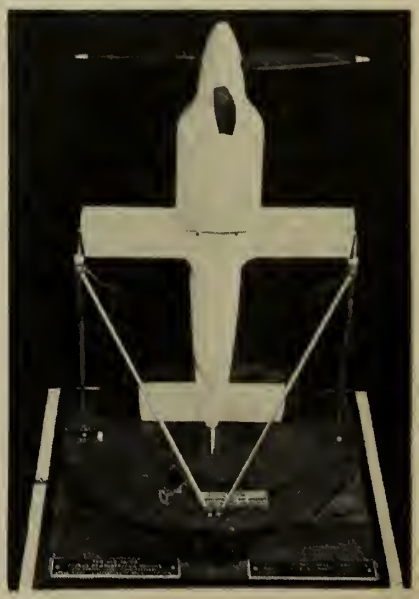
The pilot's already crowded "dash board" was gaining more knobs and dials with each improvement in his plane. AIL is making flying safer and more enjoyable for naval aviators by making the instruments larger, locating them in different positions, and grouping them in more suitable relationship to each other. This, plus the constant search for more accurate and more easily understood indicators, is helping the Fleet Air wings to be better prepared to meet any emergency that might arise. Work done by Navymen at AIL was primarily responsible for the recent first remote control all instrument flight of a helicopter.

These are the seven labs of the Air Development Center. In addition the center has its own air station with the duty of maintaining and operating approximately 50 aircraft assigned to the various departments for experiment and development. Types of planes range from prop-driven WW II bombers and fighters to the latest in jets and helicopters.

The next time you watch one of the Navy's new jets slice the sky, or marvel over a new piece of electronic gear, you might "look for" the invisible stamp of approval of NADC for it will have been placed there by the Navymen working behind the barbed wire at Johnsville, Pa.

ORDNANCE SPECIALISTS check storage on 20mm gun. *Right:* 1949 working model aided development of VTO plane.





FASRON FIVE PERSONNEL muster on air strip for inspection in front of their waiting pool and support aircraft.

Servicing Master Jets

In the relatively short period of three years NAS Oceana, Va., has grown from an auxiliary air station into one of the Navy's two East Coast master jet stations. Sharing in the rapid growth and the accompanying problems is Fleet Aircraft Service Squadron Five.

In carrying out her mission of supporting some 22 Fleet commands, FASRon Five has custody of the station spaces used by the units aboard and must supply them with the many and varied items and knowledge which are needed to keep today's jet aircraft flying.

The greater portion of this work goes on in the squadron's maintenance department where many different types of jet engines, electrical and electronic equipment, complicated hydraulic systems, guns, rockets, guided missiles, and all the other components of modern aircraft are put into shipshape condition. In addition this department must maintain all ground handling gear incident to efficient handling of aircraft on the flight line.

The service squadron also keeps a pool of 20 to 80 planes available in a ready status for replacement of other squadron aircraft when necessary; flies and maintains her own operationally assigned planes; operates rocket and bomb targets at Duck, N. C., which are used by all squadrons in the Tidewater area; and functions as a receiving station for personnel ordered to and from other units of Oceana.

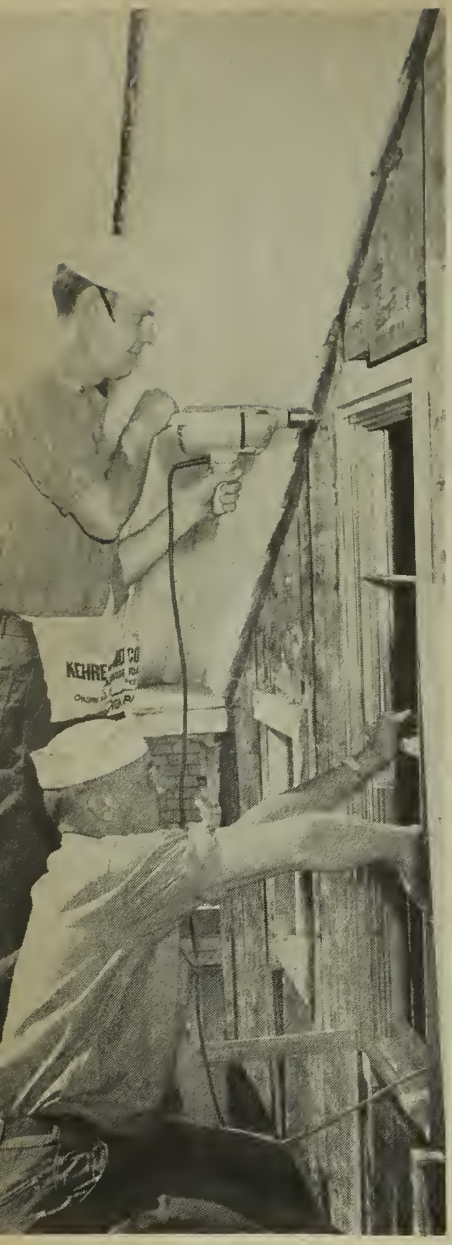
FASRon Five has so successfully solved the "pains" of rapid growth that the unit received the grades of "Outstanding" in the 1954 and 1955 ComAirLant Administrative/Material inspection, singling it out as the best of its type in the Atlantic Fleet.

JET MEN work on engine modification in repair shop. *Below:* Squadron's metal shop has the finest equipment.

AVIATION ELECTRONICSMEN repair intricate gear used in the modern jets of Atlantic Fleet in the electronic shop.

F3D *SKYNIGHT* is inspected by Operation and Communication officers, C. E. Dunnigan and T. F. Gallagher.

Training Pays Off Twice



COMBINE THE TRADITIONAL "can do" spirit of the Seabees with a measure of good will and you'll come up with the Reserve Seabees' continuing efforts to help in community projects and, at the same time, enhance their training program.

In time of disaster, too, these Reservists are quick to lend a hand. The recent floods in New England provided ample opportunity for Reservists to aid their hometowns. Similarly, Reserve Seabees living in hurricane areas spent long hours helping stricken families.

Every year, Seabee units throughout the country contribute their time and skill toward construction and repair of Boy and Girl Scout camps, Y.M.C.A. facilities, community swimming pools, and so on down the line.

Helping in such local construction projects pays off in more than good will for members of Naval Reserve Seabee divisions. While the Reservists are winning valuable publicity for their program and the Navy in general, they are augmenting their regular training with practical work.

Many Reserve Seabees are highly skilled in one specialty but have little practical knowledge outside their own field. When the time comes to heave around and help renovate a Girl Scout camp or do a face-lifting job on a swimming pool, their specialized skill in, for example, fine cabinet-making, may not be too useful in installing window sashes or pouring concrete.

The diversified training the Reservists receive while taking part in one of these operations adds greatly to their over-all proficiency.

Let's examine several "case histories" of Seabee divisions helping in community projects:

Not so long ago, a division in upper New York state—NRCB Division 3-33(L) — was asked if it could help with the construction work at a Boy Scout camp. The campsite, donated by a local organization, was in need of much construction work and the cost was prohibitive because of lack of funds and the isolated location.

The Scouts had been working on their camp whenever they could, but their varied skills were not particularly suited to the tasks at hand. Furthermore, they lacked the necessary tools and equipment for performing the work at maximum efficiency.

After some preliminary discussions and a visit to the campsite, planning got underway in earnest.

The project—which wasn't going to be easy—was outlined to the members of the division. Participation was to be strictly voluntary and there would be no pay. Subsistence and quarters would be provided but many Reservists would have to sleep in open lean-tos.

Enthusiasm was high, however, and the Reservists were "in business." Arrangements were made for the use of seven dump trucks, three bulldozers, one truck crane and all necessary small tools.

USNRTC Troy, N. Y., helped with such necessary items as blankets, first-aid facilities, preparation of menus and procurement of food. The commanding officer added movie film and equipment for Saturday night recreation. Sunday church services by a Catholic and a Protestant chaplain were also arranged.

Work ranged from clearing roadways and surfacing them with gravel to carpenter work on the messhall. While men with limited experience helped with the roofing of the messhall, other builders completed the shower building partitions and constructed new stairs. Twelve shower heads were installed and hot water facilities were provided.

Careful planning, hard work and good weather combined to make this "Operation Buildup" so successful that similar projects are planned for next year. The "buildup" part of the

SIGN OF THE TIMES—CBs throughout the country are killing two birds with one stone by lending their skill for maintenance of local non-profit camps.

ith Seabees

operation paid off in two ways — the Boy Scouts got a greatly improved camp and the Reserve division filled all but two of its vacant billets as a result of the publicity the project received.

A similar face-lifting job was done on a Y.M.C.A. camp in Aurora, Ohio. Seabee Divisions 4-17 and 4-18, Cleveland, spent their annual two-week training duty on this project.

The work included renovation of the historic "White House" at the camp, repairing a swimming pool and installation of new electrical wiring in many of the buildings.

All construction materials and equipment were furnished by the Y.M.C.A. and the Seabees used the housing and messing facilities at the camp.

The project enabled the Reservists to receive needed practical training and experience while providing a service for a non-profit organization.

In Perth Amboy, N. J., the Girl Scouts were aided by members of Seabee Division 3-6. Projects included installation of a septic tank, carpentry, landscaping and grading at Camp Momoco.

Reserve Seabee units of Bridgeport and Waterbury, Conn., turned to in behalf of local Boy Scouts. The Reserve outfits—NRCB Divisions 3-1, Bridgeport, and 3-22, Waterbury, converted a rough hillside into a rustic amphitheater.

Another example of the growing trend toward combining practical training with projects useful to local organizations can be found at Kuhn Day Camp, located north of Philadelphia, Pa. Members of NRCB Division 4-2, Philadelphia, erected three Adirondack-type shelters at the camp. Officials at the camp had concrete foundations poured before the division arrived, so the Seabees could devote full time to the carpenter work.

NRCB Division 12-13, Stockton, Calif., took part in sprucing up two summer camps in the nearby Sierra Nevadas. In addition to doing a large amount of repair work at the two camps, the Reservists constructed a commissary building for Boy Scouts at Camp Paradise and a messhall for the Y.M.C.A. at Lake Alpine.

Two Seabee groups—NRCB Division 9-46, Kenosha, Wisc., and the Kenosha-Racine Island of the Seabee Veterans of America — undertook a project to help local Boy Scouts.

The two groups agreed to build two buildings, in competition with each other to see which group could complete a building in the shortest time. Taking their cue from the Scout motto, "Be Prepared," they prepared models of the structures and practiced in advance. On building day, they started at 0800, took off an hour for a "chuck wagon" lunch, and finished the buildings the same day. The Reservists won the "competition" —they finished at 1600, the veterans' group finished an hour later. The two buildings, measuring 22 by 30 feet each, will be used for church services, and for sheltered campfire areas.

And so it goes, around the country, as members of Reserve Construction Battalions build buildings for their neighbors and good will for themselves and the Navy.

NAVY WELDER gets some good practical experience in his rate while CB Reserve Divisions 4-17 and 4-18, Cleveland, volunteer repairs on YMCA camp.

CONSTRUCTION ELECTRICIAN of Reserve unit installs furnace at camp. *Right:* CBs hold class in construction.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Drawing a 'Dead Horse'

SIR: I would like to find out whether or not the Bachelor's Allowance for Quarters is included with the base pay when you are being transferred from one permanent duty station to another and advanced pay is drawn.—S. B., SD3, USN.

• *No — basic allowance for quarters (BAQ) is not included in an advance of pay. This is known as drawing a "dead horse" and in accordance with paragraph 044285 of Volume IV, "Navy Comptroller Manual," officers and enlisted members of the Navy and Naval Reserve on active duty may be paid an advance of pay not to exceed three months' basic pay, less income tax withholdings and less the amount of any indebtedness to the government resulting from an advance previously made on a different set of permanent change of station orders.*—ED.

Navy Nurses

SIR: Recently, Public Law 294 authorized all branches of service to give reserve commissions to male nurses. I would like to learn the Navy's policy concerning this since I am a graduate registered professional male nurse.—M. L. W., HM2, USN.

• *While legislation was enacted in the last session of Congress to provide permissive authority for the appointment of male nurses in the Navy Nurse Corps, the Navy Department has not yet established a program for the procurement of men in this category. If such a program is established, implementing instructions will be forwarded to naval activities.*—ED.

Continuous Service

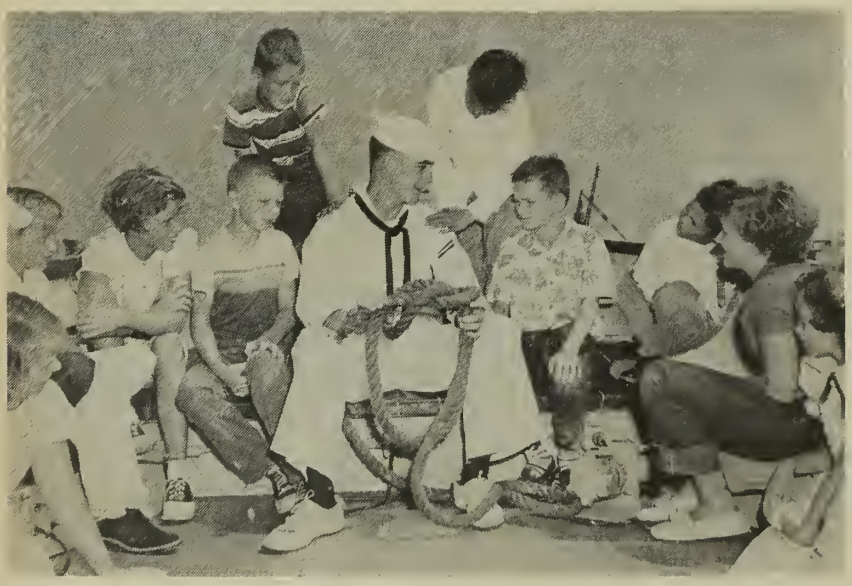
SIR: I have just returned from a discussion with my personnel officer and his staff concerning the entry to be made in the block marked "Commencement date of current continuous service for eligibility purposes" on "Report of Examination for Advancement in Rate" on NavPers Form 624.

It is the general opinion here that the date desired is the date on which the man first came on active duty, within the meaning of continuous service as explained in paragraph c, Enclosure (1), to BuPers Inst. 1412.2, which defines the term "continuous service."

I think the date desired is the date on which the man is advanced to his present rate, inasmuch as his eligibility for advancement to the next higher pay grade begins on that date, and the service requirements listed in Article C-7204 (3), *BuPers Manual*, make no mention of total active service (except for advancement from first class to CPO).—W. R. K. Jr., YN1, USN.

• *The date to be entered in block 21 of NavPers 624 is the date a candidate began current continuous service for eligibility purposes. And for this purpose, continuous service is defined as service in present enlistment plus those preceding enlistments in any category of naval service, active or inactive. This includes service as USN-1, USNEV, USNR, USN; and for the period 7 Dec 1941 to 1 Sep 1946, USCG and USCGR service with the Regular naval establishment or full-time service on a continuous active duty basis with the Naval Reserve organization.*

Any of the aforementioned service may be counted in arriving at the date required in block 21, provided no period in excess of three months has occurred between discharge and subsequent reenlistment. NavPers 15828A, Revised 6-54, contains instructions for filling out NavPers Form 624.—ED.



GETTING A LINE on Navy life are these Chula Vista, Calif., school children watching J. Hurt, Jr., SA, USN, tie knots during visit to NAS North Island.

Navy Wife Asks About Courtesy Calls

SIR: My husband is a naval officer and we both enjoy and find a lot of helpful information in your magazine. However, there is one question that I don't believe you have ever covered and one that has recently presented quite a problem for us—that is "courtesy calling." A few Sundays ago an officer, his wife and children called on us about 1500. At that time we were not expecting callers, nor were we dressed to receive them—instead we were in our work clothes, digging and planting in the yard. I served coffee and made no apologies for my appearance since it was obvious what we were doing.

When our visitors departed they left cards denoting they they had made a formal call. This is not the first time such a surprise visit has been made and it is my opinion that it is impolite to call on an officer and his wife on a Sunday since that is their day of leisure. I would appreciate your views on this—maybe I am all wrong and we should sit around dressed for guests every Sunday whether they show up or not.—Mrs. R. O. R., Navy Wife.

• *The best source material to answer your question is contained in Article 1308 of the "Naval Officers Guide." Basically, "calls" are of two categories: (1) Those official visits and calls required*

by military protocol; and (2) social calls as required by civil and military custom and courtesy.

An example of an official visit or call is the requirement that an officer reporting to a new command call on the commanding officer. This call is made at the first opportunity by an officer reporting and is made on a working day. This would indicate that such calls are not made on Sunday. The "Watch Officers Guide," Article 2138, is a good reference for this category of official visits or calls.

The second category of visits or calls is of a social nature based on courtesy and customs and extends not only to service life but also to civilian life. It is one of the more pleasant customs of naval life that enable a Navy family to meet fellow officers and their families. Many lifelong friendships have been made through these contacts.

Newly arrived officers are expected to call at the commanding officer's home as soon as possible, followed by calls on the executive officer and heads of departments. Such calls must be returned promptly. There is no custom that prevents calling upon anyone you like and want to know better.

Usually calling hours are from 1630 to 1900 within the naval service. Sundays are no exception. At an Army post the usual calling hours are from 2000 to 2100. On Sunday calls are permissible between 1500 and 1700.

Exchanges of social calls vary under certain circumstances and localities. Examples are special local ground rules in Washington, D.C., and Annapolis, Md. Often the exigencies of the service, as during wartime or extensive ship operating schedules, complicate the opportunities for social visits and calls.

Whenever calls are made at non-customary hours, the caller should not be surprised to find the host unprepared for company calls. At one time or another in each Navyman's career there is bound to be a situation wherein callers arrive at inopportune moments. However, most naval families are a friendly and informal group and accept such situations on a "welcome aboard" basis without embarrassment—so go ahead and relax on Sundays (with or without guests) because, as you say, that is your day of leisure.

Further information on this subject can be found in "Naval Customs, Traditions and Usage" by Lovette and the leading books on etiquette.—Ed.

Dividing Line Is At 0900

Sir: It is a policy at this command to charge a day of leave for an individual if he reports at 0900 on his day of return from leave.

The "book" says that a person must return before 0900 in order that his day of return be counted as a day of duty. Is there a more liberal interpretation of the phrase "prior to 0900?"—D. M. P., PNC, USN.

• *If you return from leave at exactly 0900, the day of return will be counted as a day of leave. There is no "liberal" interpretation to Article C-6305(1) in "BuPers Manual" which states in part:*

"The day of departure of leave, whatever the hour, shall be counted as a day of duty; the day of return from leave shall be counted as a day of leave, except when such return is made before 0900 in which case it shall be counted as a day of duty."—Ed.

Requirements for Recruiters

Sir: Recently, I've read a good bit about the critical shortage of men qualified for recruiting duty. Are men with previous experience being recalled for this duty? Although I lack the required sea duty, I would like to submit a request for recall to recruiting duty, if that's possible.—R. P. B., MMC, USN.

• *The need for ex-recruiters from forces afloat has been fulfilled, but requests for recruiting duty are still being accepted from men who have the required sea duty and are otherwise qualified. Requests should be submitted in accordance with Article C-5208, "BuPers Manual."*—Ed.

Chestful for Leyte's Crew

Sir: Could you give me a list of the awards I rate for service in USS *Leyte* (CVS 32) during the period March 1950 until June 1954?—J. L. C., ENS, USN.

• *You rate a chestful for those four years. They are the Navy Unit Commendation, Navy Occupation Service Medal with "Europe" clasp, National Defense Service Medal, Korean Service Medal with two stars, United Nations Service Medal, and the Korean Presidential Unit Citation.*—Ed.

PO Standing OOD Watch

Sir: Our ship has petty officers stand the OOD watch on the quarterdeck. Some men aboard have different opinions as to whether or not the petty officer should be saluted following the salute to the ensign upon boarding ship. One man claims that as long as the OOD is not present on the quarterdeck, the petty officer does not rate a salute since he is not a commissioned officer. Also, we would like to know if the petty officer standing the OOD watch salutes an officer first (if he is boarding) or does the officer salute the OOD first?—R. M., PH3, USN.

• *When an enlisted man stands the Officer of the Deck watch, he is entitled to receive, and required to return, salutes the same as a commissioned officer. For complete information, you can check articles 1008 and 2108 of "U.S. Navy Regulations, 1948."*—Ed.

Substitute Exam for Advancement

Sir: On my examination for AC1, I ran into a rather unusual situation. When the results of the exam was received aboard my ship, my name had been omitted. Upon further investigation, it was discovered that my test and answer sheet had been mistakenly burned. The executive officer stated that he would be willing to take any remedial action, but knew of nothing that could be done. Do they have any policy to cover unusual cases like mine?—E. L. A., AC2, USN.

• *You may submit a request to the Chief of Naval Personnel, via your CO, for a substitute examination in accordance with Para. 120 of "Instructions for the Administration of Examination for Advancement" (NavPers 15828A).*—Ed.

FOUR YEARS on board *USS Leyte* (CVS 32)—shown here entering San Diego harbor from Korean war zone—could add up to chest full of ribbons for crew.

SIX TO PORT sent in by *USS Everglades* (AD 24) *left*, and *USS Arcadia* (AD 23) is a good start for mooring honors.

Tenders Dig into Family Albums to Prove Claims on Broods

SIR: Have watched with interest your pictorial battle concerning the number of ships alongside various tenders and oilers. At last count USS *Nereus* (AS 17) and *Laertes* (AR 20) were tied with 10 apiece. This isn't any claim but as you can see by the enclosed picture we have put six destroyers on one side with no strain and could certainly have bettered the record if we could have found enough "hens" needing mothering. The ships are, from left to right, USS *Everglades* (AD 24); *Fiske* (DDR 842); *The Sullivans* (DD 537); *Hawkins*, (DDR 873); *Myles C. Fox* (DDR 829); *William R. Rush* (DDR 714); and *Robt. A. Owens* (DDE 827)—W.I.T., SN, USN.

SIR: How about six on one side for a record, as in the attached photo taken in Athens, Greece. The ships are, reading from left to right, USS *Arcadia* (AD 23); *Hawkins* (DDR 873); *McNair* (DD 679); *Exploit* (MSO 440); *Bulwark* (MSO 425); *Aggressive* (MSO 422) and *Bold* (MS 424).—J.C.M., LCDR, USN.

SIR: USS *Cascade* (AD 16) claimed a title with seven ships alongside which I know *Frontier* (AD 25) can better. We have done a lot better than that with seven DDs, an LST, one water barge and one oil barge. However I can't locate that picture but will enclose one with seven tin cans which I feel is better than *Cascade's* record, as you will note the complete absence of yard craft.—W.H.C., CWO, USN.

• *To clear up any misunderstanding, it wasn't* Cascade *that claimed a record with seven—it was a good photo which* ALL HANDS *published with an invitation to send in pictures that could top this number. We didn't expect all this response but we're glad to hear about any records or claims of records by Navy ships of all types.*—ED.

SIR: Since our first photo of USS *Cascade* appeared in ALL HANDS, with seven ships, we see that USS *Orion* (AS 18) has produced a photo that ties our seven ships. Enclosed is a shot of our ship with light ships alongside. I realize that this photo isn't as glamorous as the "bow-on" shot of our great ship which appeared a few months ago but this one is for the record and appearance must be sacrificed. Let me see any ship top this.—KB.P., PN1, USN.

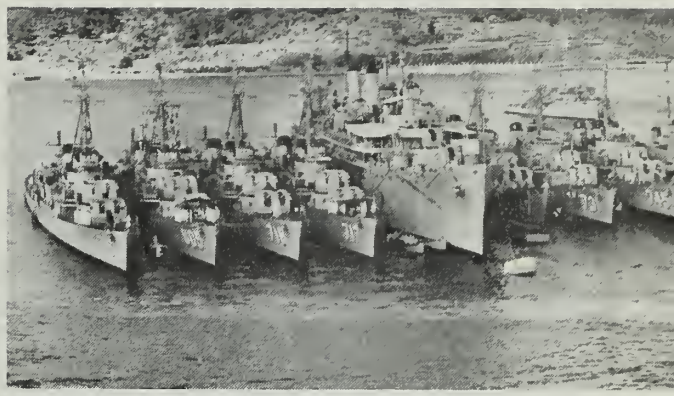
• *No doubt you wrote your note before publication of the November issue, which showed the two ships sporting 10 alongside. However, your claim of eight is hereby noted. If you want the record you are going to go a little higher. In December* ALL HANDS *(p. 25), there is a claim of a ship with 21 other ships moored alongside. But from the pictorial standpoint, 13 is now tops (see below), although we've received assurances that we can expect pictures beating this record as soon as the writers can dig them out of their old files.*—ED.

SIR: USS *Piedmont* (AD 17) can top *Cascade* (AD 16) in the ships alongside argument. Not too long ago in Sasebo Harbor we had seven destroyers and one escort vessel alongside. Proof is in the form of a picture which is enclosed. The ships are, from left to right: USS *Wiltsie* (DD 716); *Chevalier* (DDR 805); *Hamner* (DD 718); *Theodore E. Chandler* (DD 717); *Samuel N. Moore* (DD 747); *Maddox* (DD 731); *Brush* (DD 745) and *Wiseman* (DE 667).—L.M.M., CAPT, USN.

• *Thanks. A good try, but other ships have topped you.*—ED.

SIR: On 17 Sep 1954, USS *Greer County* (LST 799) bettered by two

SECOND ENTRY of *USS Cascade* (AD 16) has 8 alongside. *USS Frontier* (AD 25) came up with seven to port.



TENDING TO EIGHT, *USS Piedmont* (AD 17) matches Cascade but *USS Proteus* (left) (AS 19) tops them with 12.

the record of ships alongside. At Buoy 8, Sasebo, Japan, *Greer County* had the following nine ships nested abreast to starboard: USS *Surfbird* (MSF 383), *Toucan* (MSF 387), *Osprey* (MSCO 28), *Pelican* (MSCO 32), *Waxbill* (MHC 50), *Curlew* (MSCO 8), *Condor* (MSCO 5), *Swallow* (MSCO 36) and *Heron* (MSCO 18).

As an additional point of interest, these 10 ships, including *Greer County*, represent a total of 69 Korean Service Engagement Stars. To us, this seems like a record.—R. G., LT, USN.

• *Nine alongside is no longer a record, but 69 Korean Service Stars sounds like a lot.*—ED.

SIR: The enclosed print showing USS *Proteus* (AS 19) with 12 submarines alongside was taken inside the breakwater at Yokosuka, Japan, when these ships, and USS *Greenlet* (ASR 10) represented the "submarine force" on VJ Day.

The submarines are USS *Archer Fish* (SS 311), *Cavalla* (SSK 244), *Gato* (SS 212), *Haddo* (SS 255), *Hake* (SS 256), *Muskallunge* (SS 262), *Pilotfish* (SS 386), *Razorback* (SS 394), *Runner* (SS 476), *Segundo* (SS 398), *Sea Cat* (SS 399) and *Tigrone* (SSR 419).

How does this stand up to other pictures in ALL HANDS entitled "Can You Top This?"—J.A.J., CAPT, USN.

• *Close, but no cigar. Your picture of 12 alongside, however, seems to be the best that the modern Navy can do, because the record picture was taken in 1921.*—ED.

SIR: Although now a civilian I would like to get into the controversy concerning the greatest number of ships alongside a tender. Enclosed is a shot of the old oiler *Kanawha* taken about 1920 or 1921. As you can see she has 13 destroyers alongside which I think you'll find hard to beat. I also have a picture of USS *Holland* (ARG 18) which was taken in 1937 with 14 submarines alongside her, but due to the angle from which the photo was taken, only 13 are visible.—H.G.H., ex-AM.

SIR: In the November issue of ALL HANDS, USS *Laertes* (AR 20) had 10 ships alongside. I believe this photo of the old oiler USS *Kanawha* (AO 1) taken in 1921 tops *Laertes*. Not only does *Kanawha* have 13 ships alongside, but she's holding their combined tonnage with only one anchor down.—P.A.B., BMGC, USN (Ret.).

• *Some brood! Thanks to you both. It looks as though your photos (they are both the same) set the pictorial record for ships alongside. We'll try to identify them from an old ship register. From left to right, hull numbers indicate:* USS *Meade* (DD 274), *Evans* (DD 78), *Kennedy* (DD 306), *Aaron Ward* (DD 132), *Woolsey* (DD 77), *Wickes* (DD 75), *Buchanan* (DD 131), *the "mother hen" Kanawha, Farquhar* (DD 304), *Paul Hamilton* (DD 307), *Thompson* (DD 305), *Reno* (DD 303), *Stoddert* (DD 302) *and Philip* (DD 76).

Who can top THIS?—ED.

Wearing PUC Ribbon

SIR: My ship, USS *Wilhoite* (DER 397), was awarded the Presidential Unit Citation for service during World War II, while she was the DE 397. Are the personnel serving in *Wilhoite* now entitled to wear the citation ribbon, even though they were not attached to her when the award was made?—J. C. R., BM3, USN.

• *Yes, within limits, as authorized under the provisions of Para. (d)3, Section I, Part II of the "Navy and Marine Corps Awards Manual" (NavPers 15790, Rev. 1953). That paragraph states that "personnel attached to the cited unit but not present or participating in the basic action or actions and personnel who subsequently join the cited unit shall wear the citation ribbon without star and then only while attached to that unit."*—ED.

THE CIGAR GOES to an 'old timer' *USS Kanawha* (AO 1) showing 13 nestling in photo taken away back in 1921.

FORMER PCE received additional equipment taking it out of the patrol class and was assigned to the amphibious force as control escort, PCEC 896.

Pensions for Surviving Dependents

SIR: There has been considerable discussion in our office concerning the benefits available for dependents of personnel in the Fleet Reserve. In particular, take the case of a man serving in the temporary rank of lieutenant, who reverts to his enlisted status and transfers to the Fleet Reserve. He draws retainer pay based on his enlisted grade, but if he dies this pay stops. Is his widow then eligible to receive the pension given to war widows? We don't think she would be eligible, since the husband died while receiving retainer pay.—P. B. D., LT, USN.

• *If a member of the Fleet Reserve receiving retainer pay was eligible to receive compensation for a service-connected physical disability at the time of his transfer to the Fleet Reserve (or had 90 days or more of World War I service), his dependents (if eligible in all other respects) may receive a pension from the Veterans Administration, provided the death of the Fleet Reserve member is not service-connected. In other words, the VA monthly compensation or pensions are payable to survivors only when the deceased Navyman had a service-connected disability for which compensation is payable if 10 per cent or more in degree. See page 59 and other sections of the March 1955 issue of* ALL HANDS *for additional details.*—ED.

Carrying Ammo 25 Collateral Duty

SIR: We aboard USS *Mount Katmai* (AE 16) were very pleased to read the article about AEs in your July issue.

There is, however, a minor error in the photo caption at the bottom left of page nine. AEs do not "pull alongside" carriers in WestPac.

In all rearming operations I've seen since I was assigned to AE 16 three and a half years ago, the "receiver" comes alongside the "giver."

We also think you might have mentioned the AKs serving on "TAD" as AEs, some of them for periods of as much as four years.

The crews of ships such as USS *Chara* (AKA58), *Virgo* (AKA20) and *Titania* (AKA13), really had to work harder during the Korean conflict than did regular AE crews, due primarily to the much larger dunnage requirements needed to secure the ammunition in their holds.

In closing, we want to thank you for a fine magazine, enjoyed—as its name suggests—by "all hands." J. H. B., GMC, USN.

• *As you know, your replenishment orders in WestPac stemmed from a booklet which said — among other things — that the smaller ship shall make the approach on the larger.*

In the Korean fighting USS Manatee *(AO 58), at least, worked with small boys to starboard, continuing her course and speed while big boys came alongside to port. Singly, however, the AO often made the approach to the ship she was supplying herself.*

Judging from the picture you mention, the approach could have been made by the AE—it looks that way.

Also, it was LantFlt—which, as you know, is sometimes very different in procedure, as witness the different types of rigs.

As for the AKs, you are entirely correct, of course. We wanted, however, to show ships with ammunition carrying as their main mission.

If we had mentioned AKs, then we would have been forced to include many other ship types. For example, the heavy cruiser USS Los Angeles *(CA 135) occasionally supplied ammo to smaller ships!*

Be that as it may, thanks for coming alongside with the nice words about ALL HANDS.

Any time you and your shipmates have any material for us, don't hesitate to send it in. You've got a good ship and one we'd like to hear more about.—ED.

USS GENERAL G. M. RANDALL (AP 115) heads into port. The Navy transport's home port is New York, N. Y.

Reenlistment Bonus

SIR: If I have shipped over once and at the end of that second enlistment extended my tour of duty for an additional two years, do the two years count as another reenlistment when putting in for reenlistment bonus? In other words will my next reenlistment be my second or third?—A. E. D., SH1, USN.

• *Under the provisions of the Career Compensation Act of 1949, as amended, a two-year extension effective on or after 1 Oct 1949 counts as a reenlistment, meaning that your next reenlistment will be your third, not second.*—ED.

Military FHA Loans

SIR: Even though there has been a good deal of publicity regarding the in-service G.I. loan, popularly known as the Military-FHA loan, it seems that not too much information has been published on obtaining and qualifying for such a loan. Many active service Navymen are building their own homes, but find out that they are unable to obtain an in-service loan except through a contractor or real estate agent. Also, in the naval district in which I'm stationed, no bank will make such an in-service G.I. loan and so far I have been unable to find any loan association that will make such loans to an individual building his own home.—R. Z. W., QMC, USN.

• *Among other things, Public Law 560 (83rd Congress) was designed to aid in providing housing for personnel of the armed forces of the U.S. and their families through a system of FHA mortgage insurance specially designed to assist the members in financing the construction or purchase of such housing. Detailed information on purchasing homes by military personnel was in the March 1955 issue of* ALL HANDS.

It was not the intent of the above act that the government provide the loan necessary to construct or purchase a home, but that the government would merely assume one-half of one per cent of the interest as payment for the insurance on the mortgage loan. It is therefore necessary for Navymen desiring to construct or purchase a home under Public Law 560 to contact a lending agency willing to make the required loan.

Lending agencies and banks would be reluctant to grant a loan for the construction of a house when the construction was to be accomplished by someone other than a licensed contractor. However, if you are able to procure a loan for the construction of a home and the construction meets the standards required by FHA, there is nothing in the law that would prohibit you from building your own home.—ED.

Examination Booklets

SIR: What happens to the examination booklets used in each of the competitive exams given every year? I think each man should be allowed to keep his booklet, so that he may look up answers to the questions he could not answer correctly. In the process of finding the right answers, he would also increase his knowledge of the Navy and of his specialty.

Some men, of course, would discard the booklets without another glance, but those who really want that "rate" would find them most useful.—C. J. S., AD1, USN.

• *You have a good idea, but it won't work. Upon completion of the service-wide competitive examination, examination booklets are destroyed by burning. It is not feasible to permit candidates to retain their examination booklets inasmuch as it is often necessary to issue delayed substitute examinations to candidates who were not examined on the regularly scheduled examination dates (through no fault of their own). Although substitute examinations are different from the regular examinations, these "delayed" candidates might have an advantage over those who participated in regularly scheduled exams if examination booklets were freely available.*—ED.

Record Roll of a Ship

SIR: We have quite a discussion going on concerning the record roll of a Navy ship. What is the record and what ship holds it? Also, is there any record of a 52-degree roll taken by USS *Egret* (MSCO 46) on the St. Lawrence River in 1951 or '52?—M. J. M., CS1, USN.

• *The Navy Department has no information on maximum roll of ships in the Navy. These "record rolls," the experts say, should be discounted since clinometers usually are inaccurate and exaggerate the roll. Further, the excitement and lack of reference plane cause error.*

There are occasional reports of naval vessels rolling beyond their designed limits. BuShips doesn't say it isn't impossible, but BuShips does say it's highly improbable.

Reports have been received of a roll of 64 degrees by USS Wingfield *(DE 194) and 45 degrees for* YMS 80. *In another case, the CO of* USS Passaic *(AN 87) reported to BuShips that while steaming in the Aleutian area the ship took a heavy sea and rolled to port about 90 degrees, and that she hung suspended in that unhappy condition about 30 seconds, then righted herself. She had to be towed in.*—ED.

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READY WITH HEAVING LINE, M. C. Craft, BM2, USN, waits on deck of *USS Conway* (DDE 507). *Below:* BM in *USS Sierra* (AD 18) directs work on boat deck.

DECK GANG goes into action on forecas

The Deck Gang

IN THE DAYS of the sailing ships, the deck gang made up the entire crew of an American man-of-war. To the deck force belonged the job of manning the sails and riggings, and of keeping the ship neat and trim. They were the men behind the wheel, controlling the "horsepower"; in fact, they did everything that had to be done.

Although the motive power of ships has changed from sail to coal to oil and even to nuclear power, the deck force in today's Navy remains an integral part of every ship's organization. But like everything else, there have been innumerable changes made in the deck group ratings, changes which make their jobs even more varied and important than in the past.

Let's take a look at the old time deck gang and their modern counterparts. In the days of sail, you would have found such deck group ratings as Sailmaker's Mates, Captain of the Top, Captain of the Mizzenmast, Captain of the Mainmast, Captain of the Forecastle, and naturally, Boatswain's Mates.

One of the old timers, now gone by the board, with his duties currently incorporated into the present day BM rating is the Master-at-Arms. This particular rating dates back to the time of Charles I of

ecure ship's mooring lines as *USS Calcaterra* (DER 390) approaches *USS Conway*. Right: Seamen secure after lines.

eeps Ships Sailing in Atomic Age Navy

England, but in that era they were known as Sea Corporals.

In those days, the "Jimmy Legs" were the custodians of all the swords, pistols, carbines and muskets. They also had to see that the bandoliers were filled with fresh powder before going into action. Besides being the Chief of Police aboard ship, the MAAs had to be qualified in close order fighting under arms and be able to lead the drills under arms for the seamen.

Another job performed in the days of "wooden ships and iron men" which has been passed on to the present day Navy is that of holystoning the decks. In the old days, the backbone of the deck group, the seamen and boatswains, had to holystone on their hands and knees. (Some say that the name holystone came from the fact that the seamen were on their knees when performing the job. Others claim it acquired its name because most holystoning was performed on Sundays. Still another story has it that the holystones received their names from the fragments of broken monuments from Saint Nicholas Church of Great Yarmouth, England. They were used to scrub the decks of the wooden ships of the British Navy.)

Although you'll still find many veteran "holystoners" in the Navy today, the holystone itself is becoming a rarity in the modern American Navy. With the arrival of iron ships the holystone is being replaced by the chipping hammer and wire brush. The boatswain's mate, however, is still the man behind it. Only the equipment with which he works has changed.

The Navy of today is quite different from the "holystone Navy," just as it's a long way from small, wooden sailing vessels to huge, 1000 - foot long steel ships with engines rated at 200,000 horsepower and a ship's complement of more than 3500 men.

The only survivor of the deck rates of the old Navy is the Boatswain's Mate. In the present day rating structure, the BM rating has been combined with Quartermaster, Sonarman and Radarman ratings to form the deck group.

There's been a big change in the duties and assignments of the men in the deck group ratings over the years. All, that is, except the Boatswain's Mates. Although men, ships and equipment have undergone drastic changes, the work of the BMs is quite similar to what it has always been: the handy man, the jack-of-all trades, the master seaman.

The Boatswain's Mate

Let's take a quick glance at the Boatswain's Mate, the oldest of all the ratings in the deck group, and senior rating in the U. S. Navy.

In contrast to the similarity of the jobs performed by BMs of the 19th century and today, is the man himself. Today, besides being the master seaman in the Navy, the Boatswain's Mate is looked upon as an excellent leader of men.

The term "Boatswain's Mate" is in itself one of the oldest titles in the Navy. It comes from the Saxon word "boat" and "swain," or "swein," meaning boat servant. In this instance, the word boat refers to the entire ship. To be a Navy Boatswain's Mate was the hope of many seamen in the English Navy as early as the 16th century.

The Boatswain's Mate has always been in the center of all activity aboard ship. If there's work topside to be performed, there will probably be a BM in charge. During battle, he'll be in the thick of it, acting as gun captain or as part of the gun crew. In rendering ceremonies, the man with the crossed anchors is there.

Traditional with the term "Boatswain's Mate" is the boatswain's pipe or whistle. Originally employed to "call the stroke" in ancient rowing galleys, it became, in the early Navy of England, a badge of office and of

QUARTERMASTER Third Class C. E. Paulsen, turns a trick at the wheel while at sea on board *USS Rankin*.

BOATSWAIN'S MATE, Quartermaster, and seaman work on flying bridge with navigator (at the pelorus) as their ship approaches the harbor area.

honor. The Lord High Admiral wore a gold pipe, suspended around his neck on a gold chain. Other commanders wore a silver pipe or "whistle of command" that was used to call attention to orders about to be passed and as a salute to ranking officers and personages. Later, the pipe became the distinctive emblem of the boatswain and his mates, and it is now used by Boatswain's Mates in the U. S. Navy.

The pipe, or call, as it is sometimes referred to, may be sounded in any combination of trills, peeps or shrill blasts, depending upon how it is held in the hand. When orders are passed on shipboard, the Boatswain's Mates of the watch "wind their calls" and call attention to their orders with the appropriate notes on their boatswain's pipes.

On a man-o'-war, during the ceremonies upon the arrival or departure of a ranking officer, the Boatswain's Mate stands at the gangway and "pipes the officer over the side." This custom originated in the days of sail, when captains visited one another at sea, and were hoisted aboard in a boatswain's chair when the weather was too rough to permit use of gangways.

During the hoisting, the pipe was used to give orders to "hoist away," "avast heaving" and "swing in." Certain of the seamen assisted by steadying the line, by giving the visitor a hand, and—as the custom has always been—by having "side boys" in attendance during the ceremonies at the gangway, though their original duties are no longer required. Today they merely form a lane through which the visitor passes when entering or leaving a ship.

Quick thinking and actions are a necessity with any good Boatswain's Mate. Take the case of Boatswain's Mate Reuben James, USN, serving on board USS *Enterprise*, a schooner under command of Lieutenant Stephen Decatur, USN, during the war with Tripoli (ALL HANDS, December 1955, p. 28).

As part of the boarding party, the American had captured three Tripolitan craft and in desperate hand-to-hand fighting, Lieutenant Decatur was knocked to the deck. He was about to be slashed on the head by another Tripolitan when Reuben James, although suffering from disabling wounds in both arms, stepped in the way and received the blow of the scimitar intended for his skipper.

This quick thinking and heroic action has been typical of the Boatswain's Mates through the years. Since the Civil War and to the end of World War II, some 124 men wearing the crossed anchors have been awarded the Medal of Honor. This number is out of a total of 723 that have been awarded to naval personnel. (The MOH is awarded in the Navy during both wartime and peacetime.)

Day in and day out, the Boatswain's Mate must display his ability as top seaman, top boatman, top rigger and top gunner. It is this variety of skills that places him in a unique position. Other ratings can do some of these jobs but the Boatswain's Mates can do them all—and do them well.

Unlike the members of the ship's black gang, who rarely see the sun rise or set at sea, the BM has a job that usually keeps him out on deck. This is also true when he draws shore duty. Here, he is frequently kept busy with master-at-arms duties or assisting the First Lieutenant about the station.

Aboard ship, he must know and be able to handle just about any job topside. The use of lines, cordage, wire, canvas and leather must be routine knowledge. Before a striker can join the petty officer ranks of this rating, he must be able to prepare rigging for all purposes, including heavy hoisting, towing and refueling. He must know the use of signal flags and lights; supervise the deck crew in cleaning and the preservation of the ship's hull and superstructure.

Shipboard procedure comes to the good Boatswain's Mate as naturally as breathing. He is qualified to stand gangway watches and take his turn as steersman; he can pass the word and pipe common shipboard calls.

Although it would be difficult to list every job a Boatswain's Mate has—at one time or another—been called upon to perform, here are some of the major items which he must be able to handle:

- *Small Boats*—As a boat coxswain or Boatswain's Mate in charge of a number of small boats, the BM will have a number of men working under his supervision. He must know all there is to know about the boat's equipment, capacity, and handling. How to get the boat safely in the water, how to hoist it back aboard

THE RIGHTHAND MEN of navigator and watch officer are the members of the deck gang. Here, they take messages on the signal bridge of *USS Rankin*.

and secure it are of prime importance.

• *Piloting and Navigation* — Although most Navy POs know something of buoys and the "Rules of the Road," the BM must have a good working knowledge of this. Since he may someday find himself as skipper on a picket boat or small yard craft, he must know the buoyage systems in use, how to read nautical charts, and must be able to use such navigational instruments as the various type compasses, protractors, parallel rulers and stadimeters.

• *Deck Seamanship*—This is the base of all BM work. Since a Boatswain's Mate begins his career as seaman in the deck gang, he'll probably have this type of work down pat. The BM's know such jobs as handling ground tackle, working on small boats, chipping and painting the deck and superstructure, refueling at sea, taking charge of lines for mooring the ship and rigging gangways, accommodation ladders and booms.

• *MAA*—Although any petty officer may be a Master-at-Arms, it is usually the BMs, as senior line POs, who draw this assignment. Under the Chief Master-at-Arms, who comes directly under the exec, the MAAs are the ship's police force, enforcing ship and Navy regulations; handling the brig and prisoners, mustering the PALs and supervising the Lucky Bag. Another MAA job the BMs usually draw is in the mess hall, handling mess lines, and as bossman of the messcooks.

• *Marlinespike Seamanship* — Closely connected with deck seamanship is the use of lines, wire, canvas and leather. Making such items as boat fenders, cargo nets, hatch and boat covers is all in the day's work for the Boatswain's Mate.

• *Gunnery*—Acting as Gun Captain, the Boatswain's Mate plays a big role in the offensive action of his ship. The safety of the ship might easily depend on how well he knows his gun and how thoroughly his gun crew is trained.

• *Amphibious Boats*—A specialty for which a Boatswain's Mate might qualify is that of Assault Boat Coxswain. Although as a BM he must have a good working ability on the craft, he can become a specialist in this field, knowing how to launch and beach landing craft, how to use anchors and winches both to beach and to retract his craft, and how to launch, assemble and operate pontoon barges.

The Quartermaster

The second oldest rating in the deck group, and second only to Boatswain's Mate as senior rating in the U. S. Navy is that of Quartermaster. The duties of the Quatermaster in today's Navy are roughly similar to those of years gone by. However, the men of this rating require more technical knowledge in the performance of their jobs.

Both the Army and the Navy have quartermasters, but their jobs are 180° out. In the Army, the QM does the job normally performed by the shipboard "S" division. The Navy quartermaster, on the other hand, is the watch officer and navigator's right hand man, aiding in just about everything concerned with navigation and signaling.

Back in the 18th century, the seagoing quartermasters actually were

SONARMEN AND RADARMEN are the protecting eyes and ears of Fleet. Shown is O. V. Clark, SOC, USN.

TODAY'S Quartermaster is signalman too, must know all equipment from searchlight above to flag bag below.

OLDEST of deck ratings, boatswain's mates like this early Navyman sailed seas as far back as 16th Century.

soldiers assigned as "masters" of the quarters of troops embarked on transports.

As time went on, they were so useful it became the custom to have these men remain on board their ship even after the troops had disembarked.

These men were gradually assigned other duties in the ship. Eventually, they were integrated into the crew.

As the chief assistant to the conning officer and the navigator, the quartermaster of today must have the answers to any question that might come up during his watch. As the "secretary" to the OOD, he must know the duties of the officer of the deck.

An important duty of the Quartermaster of the Watch is keeping up his Quartermaster's Notebook. Into this book, the Quartermaster enters almost every event that occurs during his watch. Typical information going into the QM notebook includes items relating to men in the ship, events occurring aboard the ship, and events occurring in the area around the ship.

The Quartermaster also has the job of entering in the rough deck log such information as shaft revolutions, distance covered by ship, course, weather observations and other items such as fuel, water, draft upon entering and leaving port, magazine temperatures, tides and currents.

The Quartermaster must be able to read and interpret the various weather instruments and have a good working knowledge of aerology. In ships that do not carry aerographers, the QM is the man who must know all the various weather map symbols and be able to make up weather charts and give intelligent observations of the weather.

As the chief assistant to the OOD and navigator, the QM must know how to take and plot bearings and be able to use the various instruments, such as the compass, azimuth circle and stadimeter. It's his job to keep informed on the latest hydrographic information and to keep the ship's charts up to date.

Quartermasters seldom stand routine steersman watches, but it's usually the chief or first class QM who takes the wheel during general quarters, fueling underway, getting underway, going alongside, or whenever an unusually expert steersman is required.

The term "steersman" is relatively new to the U.S. Navy. It is the word now used instead of "helmsman." In the days of the Norsemen, a ship's rudder was turned by means of a lever called a helm, corresponding to the tiller on a modern ship's motor whaleboat. From this arose the custom of calling the man who steered the ship a helmsman. Helms are no longer a feature in ship's steering gear, but the custom of calling a steersman a helmsman still persists among the men of the sea.

Another important function of the men in the Quartermaster rating concerns honors and ceremonies in respect to high civil officials, flag officers and the national ensign. When it comes time to render honors, you don't have time to break out the publications that deal with the various types of ceremonies.

The QM is the man with the answers. When a vessel is about to pass his ship, the Quartermaster must make sure that someone is at the gaff in time to return each dip promptly when passing any merchant ship under U.S. registry or the registry of any nation recognized by the U.S.

When the ship is at dress, or full dress, the Quartermaster is the man in the middle of all the work. Likewise, breaking out and displaying the flag of the President, Secretary of Defense, Secretary of the Navy, and other high officials, falls in his province.

Since the former Signalman rating has been absorbed by the Quartermaster rating, the QM of today must also be an expert on signaling with flashing lights, flaghoists, semaphore and pyrotechnics.

It would be hard to list every job that a rated Quartermaster must know and be able to do. Just to mention a few items, the QM must know about such things as the steering machinery, steering engines, emergency steering gear, ship's telescope, binoculars, sextant, pelorus, alidade and chronometers.

The Sonarman

The other two ratings in the Deck Group are Sonarman and Radarman. The men in the Sonar rating are essentially anti-submarine men. Their job is to detect and aid in the sinking of enemy underseas craft. The Radarmen, on the other hand, are mainly concerned with detection and ranging on surface ships and aircraft.

Detection is the big work in anti-submarine warfare. The sub must first be found if it is to be sunk and that is where the Sonarman and his equipment come on stage.

Like most electronic marvels, it's the human operator behind the wires and tubes that make it count. The job of diagnosing each sound plucked from the depths by the sonar equipment rests squarely on the shoulders of the Sonarman. He must determine the importance of each sound that appears on the video or audio equipment. As an operator, the Sonarman takes on a task little publicized, but very important. He is the first to contact the enemy hidden beneath a shield of water.

Briefly, here's how sonar works. An object called a transducer extends from the bottom of an anti-submarine ship. It sends powerful sound waves out into the water by making a quick sharp vibration that is called a transmission. These vibrations form a cone-shaped sound beam—like the beam from a searchlight—which can be trained in any direction.

If the sound beam strikes an object in the water, an echo is reflected back to the ship, and the transducer picks up this echo and sends it

through the sonar equipment to the ears of the operator or translate it to a visual presentation on a screen. From these echoes, the Sonarman determines where the object is, how far away it is, in what direction it is traveling, how fast it is going—and whether or not it is a submarine.

Another type of equipment, called scanning sonar, doesn't use the searchlight beam principle. Instead, the transmission goes out in all directions simultaneously, something like the ripples on a pond when you've thrown a rock into it. Scanning sonar is usually operated with depth-determining gear which uses a transducer that can be depressed and elevated to determine how deep the submarine is. Both scanning and depth-determining sonar are comparatively new developments.

The Sonarman trains the sound beam through the water by means of a hand wheel that controls the transducer. He searches the underwater ocean area according to a set procedure until he hears the echo that means the sound beam has struck a submarine (or a school of fish).

Once located, the submarine must be kept under observation by the Sonarman. From the information relayed by the SO, the conning officer directs the ship to the attack.

As you can see, the electronic equipment needed to produce such results is complex and consequently the maintenance problems are difficult. So the SO must be trained to make adequate repairs of an emergency nature and do the maintenance work which helps eliminate the necessity of overhaul.

Sonarmen aren't necessarily restricted to detecting submarines. The best lookouts can't see an underwater mine. But the Sonarman can easily detect such stationary objects in the water. A Sonarman at a shore harbor defense station can help prevent enemy subs from penetrating a harbor. Serving in a submarine, the SO can pick up a reef or other underwater obstacle in unfamiliar or poorly charted waters.

The SO is also employed in the air arm, although here he has his own special equipment and problems.

Lighter-than-air activities have been experiencing a renewed emphasis on ASW work. The Sonarman is a recent addition to airship crews. The "dunking sonar," carried by blimps and helicopters, is a listening gear dragged through the water on lines hanging from the low-flying aircraft.

SEAMAN striking for BM must have a good working knowledge of the 'Rules of the Road.' He may some day find himself skipper of a small Navy vessel.

The word "sonar" comes from the work performed by the equipment. SOund Navigation And Ranging: SONAR. This rating came about during World War II, when the U.S. Navy invented equipment (and trained men to operate it) to overcome the enemy submarine menace, which was costing thousands of lives and millions of dollars in needed equipment.

The Radarman

The fourth rating in the deck group, Radarman, also had its beginning during World War II. Like sonar, the word radar just didn't come about. It, too, was taken from the words describing the work this piece of equipment performed: RAdio Detection And Ranging: RADAR.

Radarmen, like the Sonarmen, are operators of intricate electronic search and ranging equipment. In effect, they operate the equipment that serves as the eyes of the ship, particularly during darkness or foul weather.

The Radarman is mainly concerned in scanning the surface and air. Detection of enemy aircraft and surface ships before they gain the drop on you can determine if you'll see the next day.

Again, as with sonar, it's the man operating the radar gear who can spell the difference between victory and defeat. In scanning, he must be able to distinguish between normal disturbances and those created by the enemy.

The radio waves sent out by the radar antenna reflect on the solid object, either the ship or aircraft, back to the receiver on your radar set. By various calculations, the Radarman can determine the range and bearing of the object.

Radar was originally devised as a warning instrument to detect aircraft. But it soon became evident that it could do much more. By plotting successive positions of enemy ships or aircraft, the target's course and speed could be determined. Not only that, experience showed that radar could tell the operator whether the target was a large ship, small ship, airplane, or a variety of targets.

Today, radar can determine not only the enemy's location, but also tell whether the craft is a surface ship or an airplane, the direction in which it is going, how fast it is traveling, its altitude, and the approximate number of individual targets.

Radarmen also use their equipment to aid in fire control and navigation. During World War II, around Attu, when visibility was zero, radar pinpointed the various Japanese targets for the shore bombardment ships supporting the landing on that island.

Because of the intricacy of the radar equipment, it results in highly technical maintenance problems. Although the Radarman is not expected

to be a technician (most of them have an excellent working knowledge of the innards of their equipment) he is trained to make emergency repairs and do maintenance work.

The Seaman

The backbone, and muscle of the deck force, are its Seamen. They steer the ship, fire the guns, and man the boats. When the call goes out for a working party, you can bet your next payday that seamen will make up the larger part of this crew.

When a small boat is lowered into the water, the seamen man it. When line handling parties are needed, the seamen are there. When a deck needs chipping, the man behind the hammer is the seaman. If the side needs painting, the man who goes over the side is the seaman.

The men in the seaman rating must be exceptionally versatile. The variety of jobs they perform and watches they stand demand both mental and physical agility. Watches stood by seamen include lookout, steersman, engine order telegraph, messenger, orderly, anchor watch, fire watch, telephone talker, lifeboat crew, lifebuoy watch, sideboy and security watch.

A seaman in the deck force, if he wants to do his job well and qualify for advancement to the PO ranks, must know small boat nomenclature, amphibious craft, Rules of the Road and marlinespike seamanship.

The seaman must be able to handle such tools as the knife, fid, the palm and needle, the marlinespike, the serving mallet, be able to tie knots and know what type of knot to use where. As a deck seaman, he must be able to rig the ship's gangway, handle cargo, know the routine for entering and leaving port, man the chains and take soundings, rig a stage for work over the side, work in a boatswain's chair and prepare different surfaces for painting.

Anchoring and mooring also call for plenty of work by the seaman gang. One of the signs of a good seaman is good line casting. It takes hours of practice to perfect this art.

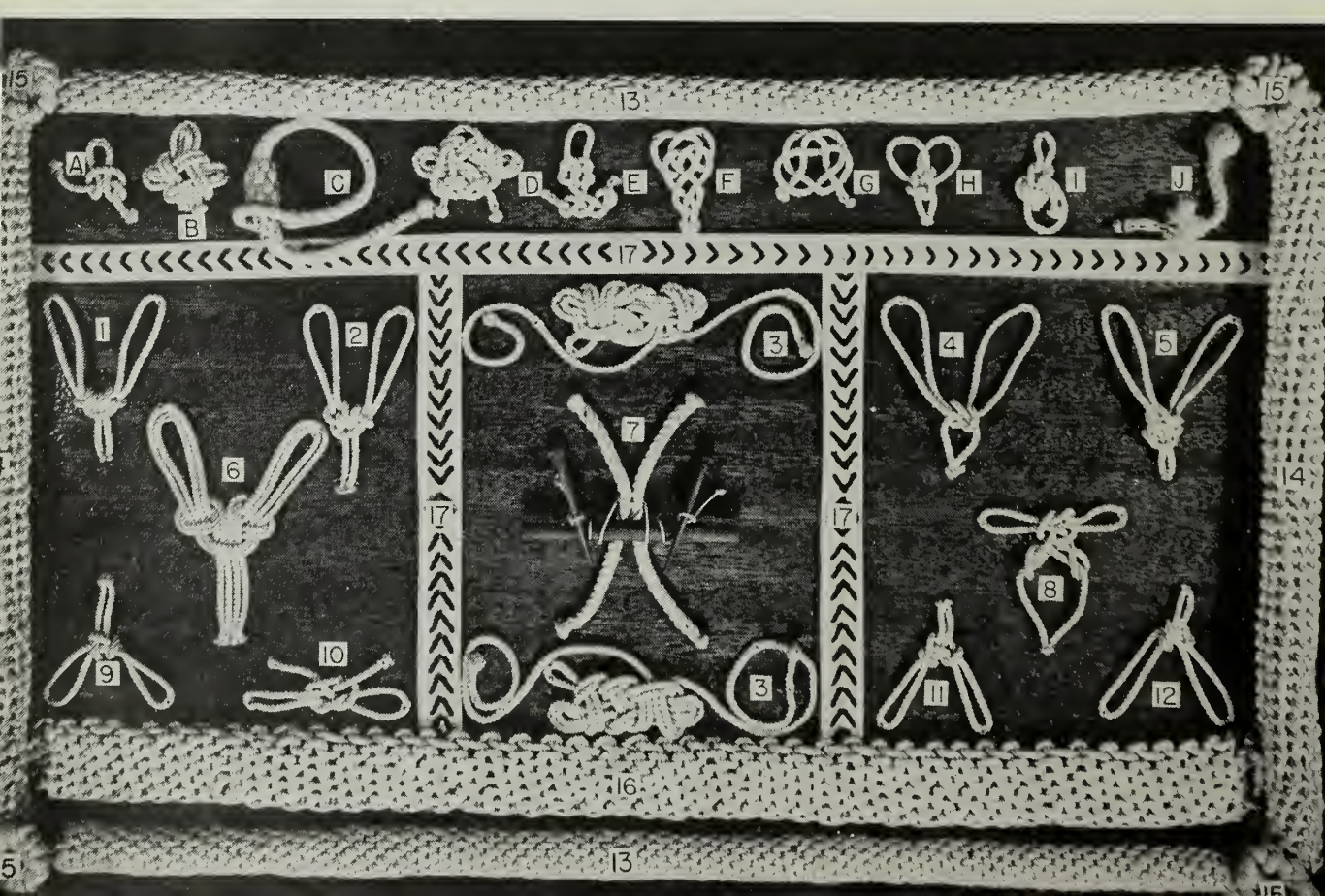
Gunnery is another vitally important phase of the seaman's job. The majority of a gun's crew is made up of seamen. Like the gun itself, the crew must operate like a smooth running machine. This is accomplished only through hours of practice. Such jobs as sight setter, trainer, pointer, loader, first loader and hot shellman are performed by seamen.

It's understood that the seamen know all about the operation of the various guns aboard ship, the different types of ammunition, what to do in case of a misfire and all other safety precautions.

This is the Deck Gang—and the job it does in your ship becomes more important with each improvement and development in your Navy.

—Rudy C. Garcia, JO1, USN.

HERE'S A CHALLENGE to marlinespike seamen. Try your hand at some of these pictured on a Spanish knot board assembled by the crew members of USS Mount McKinley *(AGC 7). They are: (A) Man Harness, (B) True Shamrock Knot doubled, (C) Mainstay, (D) Cape Horn Masthead, (E) Kettledrum, (F) Inverted Sailor's Breast Plate with interlocking ends, (G) Napoleon, (H) Lineman's Bowline, (I) Eye Bowline, (J) Yoke Line. Numbers (1) Round Turn Spanish Bowline, (2) Hitched Spanish Bowline, (3) Double Spanish Knot Sheepshank, (4) Reef Knot Spanish Bowline, (5) Double knotted Spanish Bowline, (6) Double Spanish Bowline, (7) Spanish Windlass, (8) Spanish Knot with Carrick, (9) False Spanish Bowline, (10) Spanish Knot, (11) Larkshead Spanish Bowline, (12) Spanish Bowline, (13) Outside Spanish Hitching, (14) Inside Spanish Hitching, (15) Spanish Rose (16) Spanish Mat, (17) Spanish Stitching. Incidentally, these knots tell a story.*



Men with a Line

EVEN THE LANDLUBBER knows the importance of the line in the "old Navy" when the twisted fibers were used to hoist the power-giving sails on our warships. Today, line is just as important although its use may not be as obvious from the shore.

From the king-size six-inch fiber line to small cordage such as ratline and marline the seaman soon learns how many important jobs this "ancient mariner" can still do aboard his ship. Mooring, rigging boat falls, preparing for fueling at sea, towing, and rigging boatswain's chairs, life lines, and scaffolding for painting and chipping are a few of the sea duties requiring knowledge of marlinespike seamanship. Today's Navymen, like the salts who sailed before them, find themselves falling in with the tradition of the sea in respecting and caring for their line with a feeling similar to that which a pilot has toward his safety belt.

Top: Seaman dresses and secures cruiser's bow line. *Top right:* Lines support side cleaners as they paint and chip underneath catwalk. *Right:* Sailors receive instructions in hawser splicing. *Lower right:* Lines of boatfall perform double duty as lowered LCM creates port list to raise ship's damaged starboard area out of water. *Bottom:* Seamen rig highline for the transfer of ammunition during rearming at sea.

CROSSPOINT PATTERN of 48 strands is applied to vent pipe of *USS Salem* (CA 139) by B. L. Hamilton, SN, USN.

FANCY ROPE WORK on *Salem's* gun turret gives her class. *Right:* boatswain's mates of *USS Mount McKinley* (AGC 7) are shown worming a line for protection.

Marlinespike Seamanship

FANCY ROPE WORK and the art of knot tying are long standing traditions of the sea. Like other nautical traditions, Navymen today throughout the Fleet are keeping the salty art alive as it was handed down from boatswain's mate to boatswain's mate through the years.

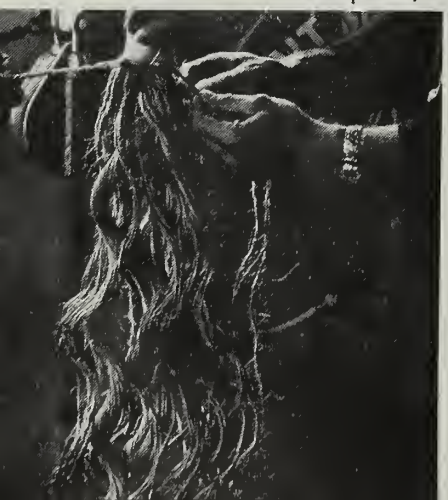
Because of its practicability and smart appearance, fancy rope work is employed on all types of Navy ships. The tradition has also spread to many naval airplanes and helicopters. In addition to the aspects of its beauty this art fills in many spare hours at sea. Often seamen may be found sitting in small groups below or topside weaving intricate designs with white line while swapping yarns as sailors have done for centuries.

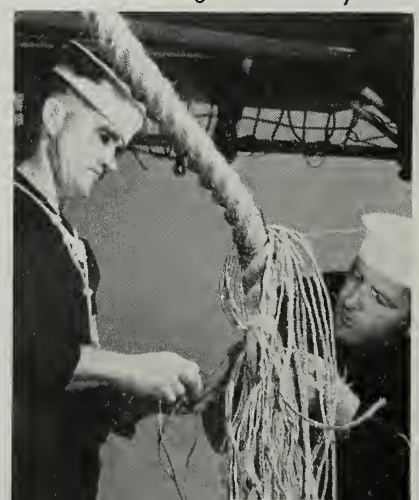
Historically speaking knot tying goes back as far as man himself, and is even practiced in the animal kingdom. (Gorillas tie granny knots in vines to hold saplings in place while building a nest.)

Through the ages evidence of the knot and its growing importance has been left in the relics man has left behind him. The ancient Greeks have even left "books" on the art of knot tying and they were so impressed by its decorative qualities that knots were often carved into their sculpturing. (Knots have played a role in legends and literature too, the Gordian Knot being one example. When an oracle declared that the man who should untie this complicated knot would conquer the world, Alexander the Great accomplished the feat (in an unscamanlike way) by cutting it).

Primitive tribes in remote parts of the world have been found to have their life centered around the knot both as a practical tool in creating most of their meager needs and as the core of their superstitions. For example, the Zulu hunters tie a knot

POINTING a hawser by the numbers. *Above:* line is whipped and strands unlaid. *Below:* Yarns are tapered, three strand braiding of outside yarns is begun and tapered rat tail is made.





ORNAMENTAL KNOTS dress up gig. *Right:* MacNamara lace is made by stripping horizontal line strands from canvas and weaving them into patterns.

Develops into Fine Art

in the tail of all the game they kill for they believe the mysterious powers of the knot applied thus will keep the meat pure.

It seems that almost everyone has tied the knot in some form or other. However, it was the seaman who developed it into a fine art. First knots tied and devised by sailors were undoubtedly for practical purposes, but in the long hours of ocean voyages in the days of the old sailing vessels where libraries, lounges, and movies were not yet to be found aboard, sailors soon found that a few feet of line could while away time and challenge the best imagination and nimblest of fingers.

Fancy knots were developed for their decorative value, and the skill to create them became symbolic of the old salt's sailing ability and seamanship.

One might think that in a modern Navy of steel ships and cables that nautical knot tying would have reached the end of its rope. But lines still play an important part in the bluejacket's life and sailors take pride in keeping alive the knotty traditions.

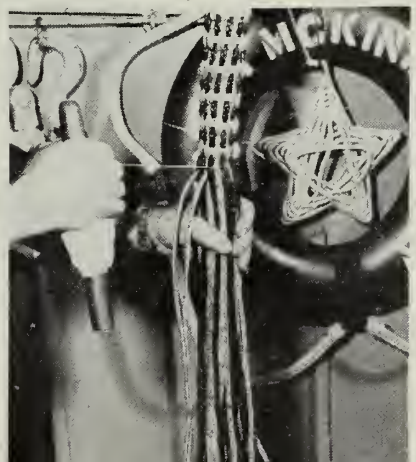
Across the top of this page are examples of marlinespike seamanship as tied by men of the Fleet, from such ships as USS *Salem* (CA 139), USS *Mt. McKinley* (AGC 7) and USS *Chukawan* (AD 100).

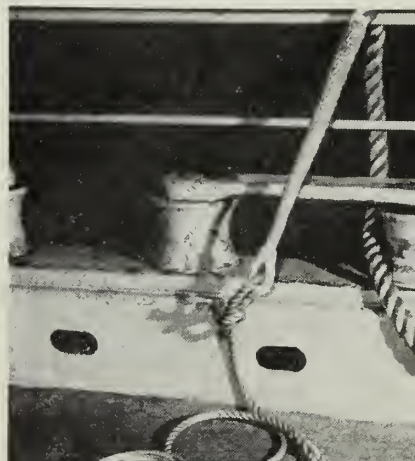
A good example of the interest and pride Navymen still have in their ability with the line is the knot-tying bee recently held aboard *Mount McKinley*. The event was run off with eliminations after the fashion of the rounds of a spelling bee and prizes went to the winners.

This is just a sample of the tradition being carried out on Navy vessels today. If you or your shipmates have some samples of this salty art on your ship that you are proud of, ALL HANDS would like to see them.

FOX and geese decorate below decks pipes of *Salem: Below:* D. Robinson, uses fid to splice on *USS Chukawan.*

BRAIDS are finished, fox and geese are whipped and pointed hawser is shown with messengers and heaving line.





HOW TO CONSR

UNPACKING NEW LINE

REMOVE the cord wrapping but leave the burlap cover on whenever practical.

UNCOILING NEW LINE

Lay coil on deck with the inside end at the *bottom* of the center tunnel. Start uncoiling by drawing the inside free end up through the top of the coil. Unwind carefully to avoid kinking.

KEEP LINE CLEAN

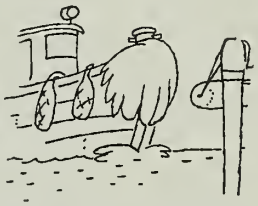
DON'T ALLOW DIRT or sand to work their way between the strands—this may cut fibers. Wash with clean water if necessary but be sure to dry thoroughly before coiling and stowing.

DON'T STOW LINE WHEN WET

SELECT A COOL DRY PLACE with good air circulation to avoid developing mildew and dry rot. Do not cover line except to protect against the weather. Covering stowed line not only holds in destructive moisture but prevents deterioration from being seen.

FIND A NEW USE

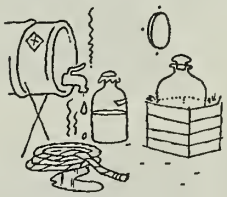
OLD LINE can be worked into practical units such as puddings, fenders, mats and chafing gear. It also may be cut in small pieces and separated into strands and yarns for stops.



BEWARE OF CHEMICALS AND PAINT

DRYING OILS such as linseed oil will damage line. You can increase the life of a line by keeping it free from paint.

SEVERE DAMAGE to rope and fibers can be caused by contact with chemicals and fumes. Examples: line exposed to chemicals used for washing outsides of buildings; exposure to acids used in storage batteries.



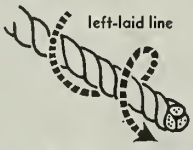
"COIL LINES WITH THE 'LAY'"

The "lay" is the direction the rope is twisted in making it.

right-laid line

RIGHT-HANDED or plain-laid line is line with the lay twisted to the right and should always be coiled in *clockwise* direction as shown in illustration in center of page.

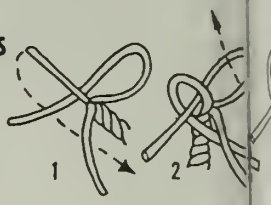
left-laid line



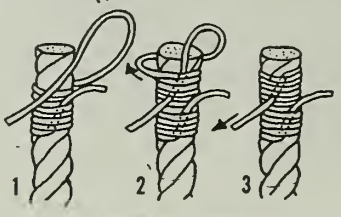
LEFT-HANDED line is made with the strands twisted to the left and should be coiled in a *counter*-clockwise direction.

KNOW YOUR KNOTS AND SPLICES

TIE KNOTS CORRECTLY so that they can be untied carefully without injuring the line. You can cut out worn or damaged sections of a line and splice it together again. A good splice is safer than a worn or damaged part. Check with your boatswain or *The Bluejackets' Manual.*



STEPS IN MAKIN
a quick and effective way to



TEMPORARY WHIPPING

LINE CONTRACTS WHEN WET! Be sure to slack off running gear in damp weather, otherwise lines will be injuriously strained.

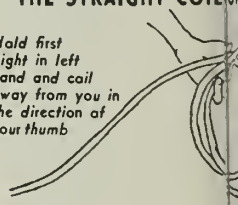
CONTINUED EXPOSU
tinued exposure to

COIL CAREFULLY T

THE STRAIGHT COIL O

Coil right-laid line clockwise

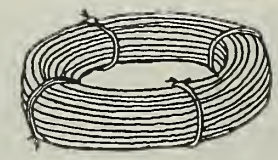
Hold first bight in left hand and coil away from you in the direction of your thumb



Lay a bight of the secured end on the deck

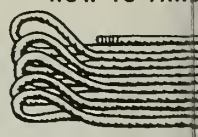
Lay additional bights on top of first bight using up entire amount of line

HOW TO STOW A LARGE COIL OF LINE

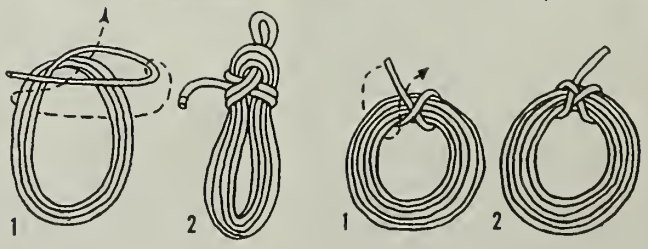


Large coils should be stowed down with three or four rope yarn stops.

HOW TO FAK

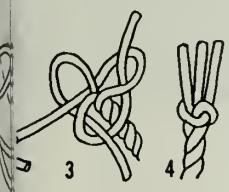


Lay the free end out in a straight lin
flat coil. Continue to lay flat ey



Suggested ways to secure small coi

Prepared by ALL HANDS Magazine

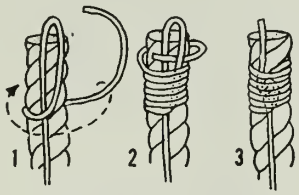


AT THE END OF THE LINE

KNOW YOUR WHIPPINGS and end-of-rope knots. Temporary whippings (shown below) and the simple wall knot, with no whipping needed, are excellent ways to keep your free ends neat until you can get around to a more permanent whipping with needle and palm.

G A WALL KNOT
to cure unraveling ends of a line.

RVE NAVY LINE



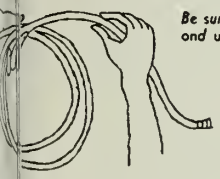
TEMPORARY WHIPPING

HANG LINE loosely in the sun or in a warm, dry room as soon as possible after it has been wet.

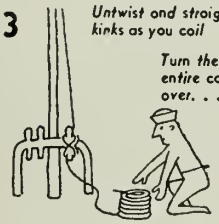
OSU: to sunlight and con-
t with will damage line.

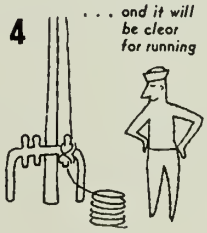
TO AVOID KINKS

OR RIGHT-LAID LINE

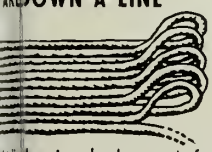


Be sure to straighten out and untwist all kinks as you go





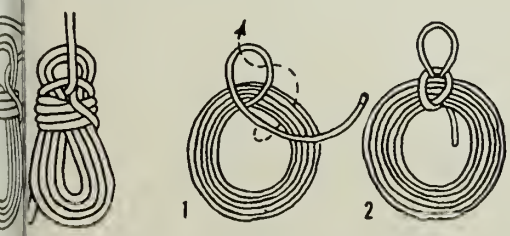
DOWN A LINE

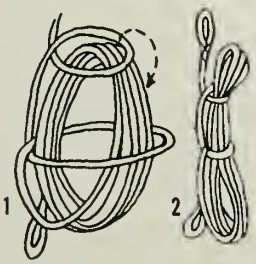


hen turn back on eye to form a close
ith the ends of the preceding coil.

HOW TO FLEMISH DOWN A LINE

Make a small circle of the free end and continue to lay small circles around it closely until the entire line is down in a flat coil and gives the appearance of a tightly coiled watchspring.





f line for temporary stowage.

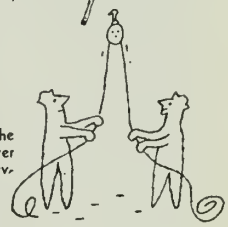
CHECK YOUR LINES CAREFULLY!

INSPECT ALL LINE before assigning a use to it. A broken line may cause serious damage and loss of life. Don't overload lines. This is dangerous to men and materials. Lighten your load or use heavier line.

BROKEN FIBERS show up as small fuzzy tufts.
SOFTNESS can be found by pressing fingernail into the strand.
MILDEW AND MOLD can be located by unlaying the strands and untwisting the yarns.

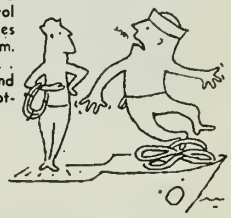
REVERSE ENDS OF THE LINE

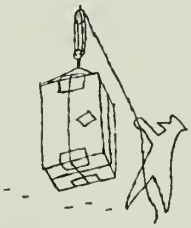
A PERIODIC SWITCH of one end's use for the other is a wise move to distribute the wear over the whole line and so increase its length of service.



DON'T DUMP LINES IN A HEAP

WHEN CARRYING large quantities of line use a spool or make a neat coil stopped in several places with yarns or small stuff. Small quantities of line can be carried neatly coiled on your arm. Make it easier for the next man to use the line . . it may be you. Hang lines on pegs coiled and secured with the suggested hitches shown at bottom of page.



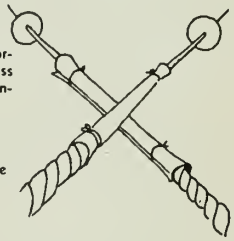


SOFTEN SHARP TURNS IN A LINE

USE MATTING OR PADS to protect line from extra strain and cutting or breaking of fibers when use requires abrupt change of direction.

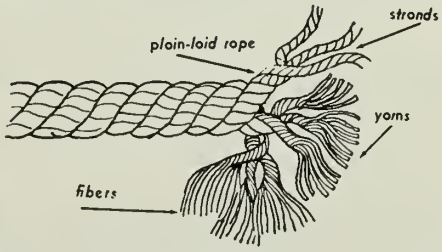
AVOID CHAFING

CHAFING GEAR can be rigged to protect mooring lines from wearing at points where lines cross each other. This consists of lashing strips of canvas around lines at points where they cross.

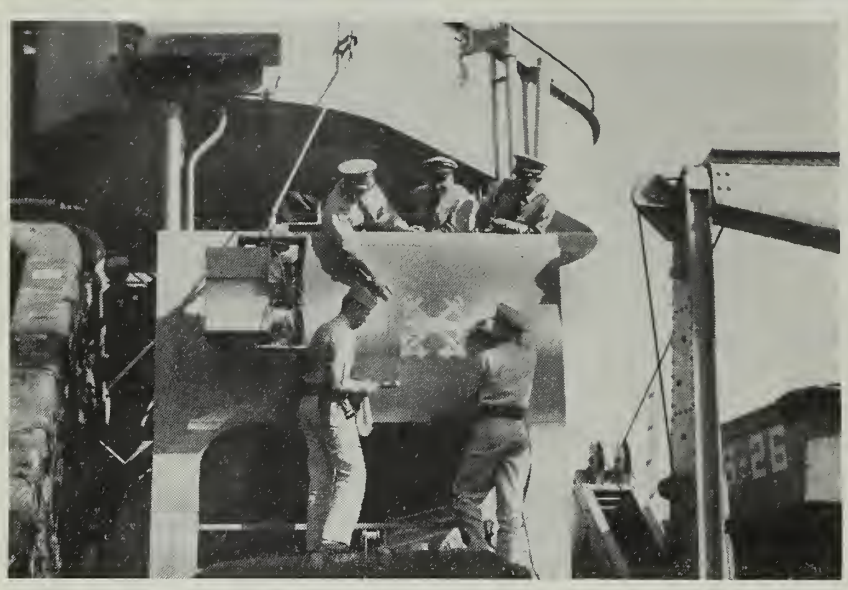


SELECT BLOCKS that are proper size for the line and job.

CABLE-LAID MANILA ROPE



TODAY'S NAVY



MARK OF DISTINCTION, Assault Boat Award insigne, is painted on USS *Botetourt* (APA 136) as skipper CAPT J. B. Grady, USN, at upper left, supervises.

Tunny Not Upset by Weather

Mariners don't often set out to look for bad weather—but that was the assignment given USS *Tunny* (SSG 282) recently. *Tunny*, a guided missile submarine of the Pacific Fleet, was ordered to find herself a lively storm area and proceed with her assigned rough weather tests.

Tunny's orders called for a cruise of at least 12 days' duration, with at least three of the days being spent in "State Five" seas—or rougher ones, if available.

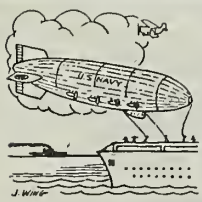
Departing from Port Hueneme, Calif., the submarine proceeded northward along the West Coast, plotting her course on the basis of weather broadcasts from Honolulu, San Francisco and Kodiak. After several days at sea *Tunny's* skipper reported "Weather *Excellent!* State Five and Six seas." (State Five seas are "very rough," with eight-to-twelve foot waves that heap up and occasionally break; State Six seas are referred to as "high," with extensively breaking waves ranging from 12 to 20 feet high.

Commander Submarine Squadron Five, under whose command the storm hunter operates, replied: "From the calm waters of San Diego Bay we salute you."

Tunny and her crew took shelter in Seattle after successfully completing her unusual mission, and all her crew members enjoyed a well-earned rest in the peaceful port.

Tunny gets her name from a giant fish weighing up to half a ton.

YESTERDAY'S NAVY



On 9 Jan 1847 a naval force exchanged sharp cannon fire with Mexican forces at Mesa, Calif., and when the enemy retreated the Americans moved in and occupied Los Angeles. On 27 Jan 1942 USS Gudgeon became the first U. S. submarine to sink an enemy warship by sinking a Japanese sub off Wake Island in World War II. On 30 Jan 1862 the ironclad steamer *Monitor* was launched at the shipyard at Greenpoint, L. I. On 25 Jan 1898 battleship *Maine* arrived at Havana Harbor, Cuba. On 27 Jan 1928 the rigid dirigible *Los Angeles* landed on USS *Saratoga*.

Assault Boat Award

The Assault Boat Award insigne—crossed anchors with a superimposed spearhead—has appeared for the first time in the Atlantic Fleet Amphibious Force on the attack transport USS *Botetourt* (APA 136).

The insigne is awarded by Commander Amphibious Force, U. S. Atlantic Fleet, to amphibious ships which meet certain rigid requirements, including boat control skill, debarkation and loading, and beaching tactics. In the final test for the award, waves of assault boats must be launched and must reach the beachhead within a specified time, depending on the ship's distance from the beach and existing sea conditions.

Botetourt is authorized to display the insigne for a period of six months or until the end of the fiscal year, whichever is longer. At that time the ship may retain it by again complying with the original requirements.

Training to qualify for the insigne has been intensive in *Botetourt*. As an added incentive the commanding officer stated that if boat crews succeeded in claiming the award, he and ship's officers would personally paint the insigne on the ship.

'Tacan' for Forrestal

The air group in USS *Forrestal* (CVA 59) will be the Navy's first fighter-attack unit fully equipped with the revolutionary flight control system "Tacan" (tactical air navigation).

Carrier Air Task Group 181, in training at the Oceana Naval Air Station, was the first to receive the airborne Tacan units. By the time the group boards *Forrestal* this month, all its jet aircraft are scheduled to be equipped with the new system.

The Tacan system will provide a pilot of a highspeed jet aircraft his position within one degree of angular range and two-tenths of a mile in distance. It is the first system perfected that will give the pilot his actual distance, in miles, from a predetermined station location.

Tacan is expected to prove effective for determining air positions of many planes and to govern aerial rendezvous for fighters and interceptors.

News of Navy Ships

It's been a long time—nearly nine years, in fact—since a **Boston** has been on active duty with the Fleet, but the former CA 69 is now being fitted out for duty as CAG 1, the Navy's first guided missile cruiser (ALL HANDS, December 1955, p. 59). Meanwhile, USS **Canberra**, a *Baltimore*-class sister of *Boston*, is expected to be recommissioned as CAG 2 in the spring. Formerly the CA 70, *Canberra* will be the Navy's second combat ship capable of firing supersonic antiaircraft missiles.

In the "bigger" Navy, one of the few active battleships, USS **Wisconsin** (BB 64), is completing a four-month period of routine overhaul at New York Naval Shipyard (including new barrels for her nine 16-inch guns); while the "Fighting Lady," USS **Yorktown** (CVA 10), has rejoined the Fleet after a "face lifting" at Puget Sound Naval Shipyard.

Other conversions and recommissionings include:

- USS **Lowe** (DER 325), a newly-converted radar picket escort destroyer which has been recommissioned at the Long Beach Naval Shipyard. *Lowe* was first commissioned in Orange, Texas, in 1943. Later decommissioned she was reactivated by the Coast Guard in 1951 at Green Cove Springs, Fla., and served as an ocean weather station ship. Placed in the Reserve Fleet again in December 1953, this time at Long Beach, Calif., *Lowe* began conversion for her new duties last fall. The new DER is scheduled for duty in the Pacific Northwest as part of Escort Squadron Five.
- Another 1943-vintage destroyer escort, USS **VanDivier** (DER 540), has also been recommissioned as a DER, this one at Boston Naval Shipyard. *VanDivier* was built and launched at Boston in 1943, but the 306-footer was suspended with the end of World War II and she was "mothballed" without being commissioned. Work on the 1643-ton vessel was resumed in 1954. USS *VanDivier* has the distinction of being the Navy's only steam-propelled radar picket, all other DERs having either diesel or turbo-electric drive systems. This innovation, part of the Navy's continuing program of experimentation with various types of propulsion, has increased the vessel's speed at least five knots.
- Two other radar picket conversions have been slated for the Long Beach yard. They are USS **Forster** (DE 334 and USS **Lansing** (DE 338).
- USS **Barbero** (SSG 317), just recommissioned at Mare Island Naval Shipyard, is the second submarine to be converted to guided missile status. She is scheduled to join the Atlantic Fleet next spring after extensive training in the Pacific.

EASY DOES IT—Submerged *Sealion* leaves combat-equipped Marines floating in rubber boats on surface.

Appropriate sponsors were found for three more additions to the Fleet:

- USS **Suribachi** (AE 21), named for Iwo Jima's volcanic mount where the Marines planted that flag, has been christened by Mrs. Lemuel C. Shepherd Jr., wife of the former USMC commandant. With an overall length of 512 feet and a beam of 72 feet, *Suribachi* has a cargo capacity of 7500 tons and can service ships from both sides simultaneously. She is the first of her class.
- USS **Barry** (DD 993), launched at Bath, Me., was christened by a great-grandniece of Commodore John Barry, Revolutionary War hero for whom the vessel is named. *Barry* is third in the *Forrest Sherman*-class of destroyers.
- USS **Courtney** (DE 1021), a 1930-ton escort vessel launched at Bay City, Mich., was christened by the mother of Major Henry A. Courtney Jr., USMC, Medal of Honor winner for whom the vessel is named. *Courtney* is the fifth vessel of the *Dealey* class to be launched.
- USS **Harris County** (LST 822) has joined the reserve fleet ranks at Seattle after 11 years of action ranging from the invasion of Okinawa to Operation Dewline, the resupply mission to the nation's arctic radar defense stations.
- USS **Mahnomen County** (LST 912), veteran of landings from Morotai to Lingayen, and USS **Monmouth County** (LST 1032) have been given into custody of Sub Group Four, Florida Group, Atlantic Reserve Fleet.
- USS **Pochard** (MSF 375), **Quail** (MSF 377) and **Swan** (MSCO 37), minesweepers built in 1944 and rushed to duty in the Pacific; the landing craft repair ship USS **Minos** (ARL 14) and USS **PCE 842** have all joined the gray ranks of the "moth ball fleet" in Florida.
- USS **Archerfish** (SS 311), veteran of seven Pacific war patrols, has been turned over to the Atlantic Reserve Fleet at New London, Conn. *Archerfish*, during her fifth patrol, is credited with sinking the biggest warship then afloat—the brand new Japanese aircraft carrier *Shinano*. During her WW II patrols *Archerfish* steamed some 75,000 miles, made over 900 dives and sank or damaged approximately 92,750 tons.

'GOING DOWN' — *USS Sealion* (ASSP 315) starts to submerge to float recon party of Marines off her deck.

Navy Juniors on Distaff Side Carry on Service Tradition

Down through the years since the U. S. Navy first set sail there have been many famous Navy families in the sea service, with father-and-son and brother teams serving throughout the Navy. To mention a few there were the famed Sullivans, the Leahys and the Callaghans. They all had one thing in common, all the famous families have been male, but now with the Waves playing an important part in the Navy the strictly male families have been joined by father-and-daughter and brother-and-sister teams.

Typical of this new trend in sea-service families are several Navy daughters who were in the recent graduating class at Newport's OCS school. The four, carrying on the Navy tradition on the distaff side are Ensigns Margaret Snyder, Merilyn Gemme, Nancy Ellis, and Marjil Stokes.

Also typical of this new trend in Navy families are the brother-and-sister team of Fred and Alfreda Lukomska, both ensigns. Fred entered the Navy as an enlisted man, worked his way up to first class petty officer and then put in for the Officer Candidate School in Newport, R. I.

During his early days in the Navy he sold his sister on the Navy and when she graduated from college she followed his lead—but she finished the course two weeks before Fred and thus outranks him.

There are only a few of the Navy juniors who can be found in each class at the Officer Candidate School. They are following in the footsteps of their fathers or older brothers in eyeing the Navy for a career.

Should you have a daughter or sister who is interested, here are the requirements and procedures for her to follow to enter the OCS program.

The Officer Candidate Program is open to women between the ages of 18 and 27, who are either college graduates or in their junior year in college. Enlisted Waves meeting the educational requirements are also eligible.

College juniors selected take officer candidate training in the summer after their junior year and then return to college for their senior year. Upon graduation, they are commissioned ensigns in the Naval Reserve, and then ordered to Newport, R. I., for officer training. Upon completion they are assigned to administrative positions at naval shore establishments.

College graduates selected under this program are ordered to eight weeks of officer candidate training at Newport and commissioned as ensigns in the line of Supply Corps of the Naval Reserve after graduation. They then take an additional eight weeks of training before the line officers are assigned to duty stations within the U. S. in such fields as communications, personnel, public relations and training. Those designated as Supply Corps officers are sent to Athens, Ga., for an additional five months' training before being assigned duty in supply or disbursing offices in the U. S.

Applicants for this program must be at least 18 and under 27 years of age at the time of submission of application; however, they must be at least 20 and under 27½ at time of appointment. They must be citizens of the U. S. and hold a baccalaureate degree from an accredited college or university unless applying as a college junior. Married women may apply but may not have dependents under the age of 18. They must be physically qualified by standards set forth for appointment in the Naval Reserve.

While the program isn't by any means restricted to Navy juniors it is a good opportunity for them and you might pass the word on to any you know. Qualified civilians and enlisted Reservists on inactive duty should apply through an Office of Naval Officer Procurement while enlisted women on active duty in the Regular Navy or Naval Reserve, who meet the requirements, should contact their commanding officer in accordance with BuPers Inst., 1120.9A.

SHIP SHAPES are studied at Newport Wave OCS. *(L. to rt.)* Ensigns M. C. Snyder, USNR; M. F. Gemme, USNR; M. D. Stokes, USNR; N. B. Ellis, USNR.

Two-man Navy TV Team

The civilian population in Jacksonville, Fla., is getting a new insight on the Navy, thanks to a brand new television show produced by the Navy over one of Jacksonville's TV stations.

Written and directed by two Navy journalists, Fred McClung, JO1, USN, and George Johnson, JO1, USN, the show features such Navy highlights as peacetime Navy training, seaplane handling, hurricane hunting, the famed Blue Angels, Navy Happy Hours and dramatic highlights from the history of the Naval Air Station at Jacksonville.

The show is put together using Navy training film and locally processed movie film which is augmented by live interviews with Navy personnel and special guests.

The idea in back of the show is to give the civilians a closer look at the Navy and the men in it. However, the Navy dependents in the area have indicated that they enjoy the show as much as anyone else because it gives them a good chance to see the variety of important jobs their husbands and other Navy relatives are called upon to do.

They Put Heart Into Their Job

A cardiac stimulator and cardioscope have been developed at the Naval Hospital, Great Lakes, Ill., by conversion of a standard Navy oscilloscope, an instrument used for determining the form of an electric wave. A cardioscope is an instrument used for visually recording the electrical impulse that actuates the heart, and a cardiac stimulator is used to stimulate the heart in cases of cardiac arrest.

The cardiac stimulator has been used successfully as a continuous monitor of heart action during thoracic (or chest) surgery. A permanent record can be made while viewing any cardiac phase on the cardioscope. The cardioscope has also been of value where classroom instruction in cardiology and electrocardiography has been in progress.

Both machines, now in use at the Naval Hospital, were converted by Wayne E. Connor, ETC, USN, under supervision of the hospital's CAPT Victor G. Colvin, MC, USN, Chief of Medicine; and LT George Sutton, head of the Heart Station.

Double Honor for Navy Hero

Ceremonies at NAS Miramar, Calif., have accorded a second signal honor to one of the Navy's most famous World War II heroes—the late ADM Marc A. Mitscher, USN. The occasion: dedication of Mitscher Field and the unveiling of a bronze plaque honoring the tough, tireless leader of America's air attack across the Pacific. Following the naval custom of naming certain types of ships for seagoing heroes, the Navy had already named one of its frigates USS *Mitscher* (DL 2).

The man honored by field and frigate entered the Naval Academy in 1904—and entered history during World War II as commander of the Pacific Fleet's Carrier Task Force 58.

In a letter to the dedication committee, ADM A. A. Burke, USN, Chief of Naval Operations, pointed out that Mitscher "will be remembered as a courageous fighting man; as a pioneer in naval aviation; as a calculating and ingenious naval tactician; as a spirited and inspiring leader of men and as a soft-spoken man with a long-billed cap, looking after his people as he said, 'Turn on the lights'" — to guide returning planes to carriers lost in a horizonless, overcast night in June 1944.

Chicagoans Like Navy Variety of Liberty

In Chicago, Ill., recently a call went out for contestants to take part in a beauty contest to help the Windy City pick a "Goddess of Liberty." Over 200 young ladies, equipped with the necessary items to compete in a beauty contest, submitted their names. Among the imposing list of names was that of one service woman, Etta Kaye Watterson, YNSN, USN, who swept through the contest and emerged the winner.

"Goddess of Liberty" Etta Kaye won a trip to Paris, France; a complete new wardrobe; a special modeling course and a motion picture screen test.

The contest was held as part of Chicago's celebration of the 69th anniversary of the famous piece of sculpture located in a prominent spot in Chicago which bears the same title as that bestowed upon Etta Kaye.

As the Goddess of Liberty the pretty seaman will represent Chicago in its campaign to help build the American Museum of Immigration at the base of the famed statue. The Museum will commemorate the contributions of people from all lands who have emigrated to America, pooled their resources, their energies and their cultures into making this such a wonderful country.

This isn't the first time that Etta Kaye has been a standout during her Navy career. During her early days in the Navy she was chosen "Honor Woman" of her company at USNTC Bainbridge, Md.

Vital statistics on Etta Kaye Watterson are rather skimpy but for the interested here they are: age, 21; hair, brunette; height, five feet six inches; weight, 120 pounds; and last but not least, marital status, single. She is stationed at headquarters of the Naval Air Reserve Training Command, NAS Glenview, Ill.

SOMETHING TO 'Wave' about—Pretty Etta Kaye Watterson, USN, is now Chicago's 'Goddess of Liberty.'

VF-32 Chalks Up 16 'E's

Aerial tow targets were literally blasted from the sky when pilots of Fighter Squadron 32 scored enough hits to win 16 individual "E" awards during the 15,000- and 25,000-foot annual competitive gunnery exercises at NAS Cecil Field, Fla.

The gunnery exercises are held as a part of yearly performance tests for every fighter squadron and serve as a source of squadron competition as well as providing a standard of proficiency.

Flying swept-wing *Cougar* jets, the pilots from VF-32 fired at aerial towed targets and were observed by neutral parties who acted as judges. Only those pilots who scored more than the required standard of hits were eligible for awards.

There was only one triple "E" winner in the squadron and that was LT Roy Johnson, USN, who chalked up awards at 25,000 and 15,000 feet.

CELEBRATING CREWMEN prepare for steak with all trimmings on board *USS Eldorado* (AGC 11). A weekly meal honors men with recent birthdays.

Birthday Meals Aboard Ship

On board USS *Eldorado* (AGC 11) meal time on Thursday is a top-drawer event for Navymen who still confess to birthdays. A special "Birthday Meal" is served each week to men whose anniversary falls during the week.

The meal features a menu of filet mignon and/or fried chicken with a special birthday cake a la mode for dessert. The steaks are served to order by mess cook waiters. The men have a reserved table.

The idea was suggested by the commanding officer of *Eldorado*.

Radioactive Lamp

"Darken ship" conditions promise to be somewhat brighter in the future—all because of the new radioactive isotopes, and scientists at the Naval Research Laboratory who have devised miniature plastic lamps which can't be seen beyond 1000 feet, yet offer sufficient light for reading charts or instructions on a darkened bridge.

The new lamps are plastic "markers," containing a mixture of zinc sulphide and an isotope which emits beta rays. The invisible beta rays act upon atoms of the zinc sulphide, causing them to produce visible light. Measuring only an inch or an inch and three-fourths in diameter, the markers are as portable as a flashlight and may be used for illumination during power failures, for topside activities during black-out conditions, as standby lighting for emergency valves and other gear, or for marking ladders, hatches and obstructions.

A single high-luminance marker will produce sufficient light for a dark-adapted person to recognize other persons or obstacles in a compartment 10 feet wide, 15 feet long and 8 feet high. The smaller-sized lamps are being installed on ships to illuminate hatches and ladders.

More Hp for Small Craft

Known as the T-522, one of the most powerful gas turbine engines ever installed in a Navy small craft is now undergoing tests at San Diego, Calif.

Weighing only 1000 pounds, which is one-fourth that of a comparable internal combustion engine, the T-522 will develop 500 horsepower. Previous gas turbine engines used in small craft developed approximately 200 hp.

Called the "Jupiter," the engine incorporates the inherent characteristics of the simple cycle gas turbine: light weight, ease of maintenance, adaptability to many fuels, low noise level and reliability of starting at very low temperatures.

This particular engine was selected chiefly because of its dual purpose potentialities, as either generator or propulsion drive.

Data obtained from experiments conducted on this engine will be considered in determining wider use of the gas turbine in the Navy.

Pleasant Mess

One of the biggest morale factors aboard the Pacific Fleet destroyer USS *Rupertus* (DD 851) is good food served in a comfortable messhall.

Boasting a messhall typical of ships now being built for the Navy, the crew is able to enjoy a home-like atmosphere while eating.

On *Rupertus*, well-padded, removable seats and small tables which seat from one to four persons have replaced the usual seats and tables to be found on earlier destroyers and ships.

The latest addition to the galley serving line is a small self-service bar of fresh vegetables and fruits for salads. This salad bar is being tested for a period of three months on a self-serving basis. On completion of the self-serving test it will be tried for another three months on a serving basis. At the end of these two tests, whichever type is most efficient will be adopted by *Rupertus* and her sister ships in Destroyer Division 32.

The messhall on *Rupertus* also serves as a recreation hall after meals for reading, studying, relaxing and movies.

Rupertus, Flagship of Destroyer Division 32, is currently on her fifth Far East cruise.

CVA Host To Air Force Officers

As part of the Armed Forces program to show the members of one service "how the other half lives and operates," one of the U. S. Navy's modern attack aircraft carriers played host to six officers of the U. S. Air Force.

The Air Force officers, who came aboard USS *Bennington* (CVA 20), observed various phases of carrier operations, including the new "mirror landing" technique. The visitors made their tour with a Navyman as "interpreter," LCDR P.E. LeBlanc, USN.

During their week-long visit aboard the flattop the visiting airmen witnessed the jet landings and take-offs from the carrier's angled deck and were particularly impressed by the new technique of landing aircraft at sea by using mirrors and colored lights.

The unique landing system consists of a large concave mirror and banks of green and amber colored lights mounted to the port side of the carrier's angled flight deck.

When a pilot approaches the flight

deck for a landing, the position of the lights and an image in the mirror tell him whether his glide path, speed and altitude are in proper relation to each other for a safe landing.

The idea for the deck landing mirror sight was developed by the British Navy which recognized the value of such a device for bringing in the modern jet aircraft. The new landing system reduces the element of human error and gives a quick and accurate signal to the pilot at the speed of light. In addition, it allows the pilot to pick up a reference signal at a far greater distance since the lights and mirror are visible sooner than the hand-held paddles of the landing signal officer which are currently responsible for bringing in all of the Navy's carrier-based aircraft.

Wasp Aids Korean Orphanage

While USS *Wasp* (CVA 18) was showing its might in the "regrouping of Chinese Nationalist Forces" in the Tachen Islands, it also showed its good will toward a small Korean orphanage located high up on one of Pusan's many hills.

The Sung Kwang Won Orphanage, which was expanded this year, had received the bulk of its support from a soy sauce kitchen owned by the director. In September the kitchen was torn down.

Made aware of the plight of Sung Kwang Won, the crew of *Wasp* has given funds to help sustain it.

While on a Far Eastern cruise, the crew of *Wasp* had originally sent money to CARE, in late 1954. The Sung Kwang Won Orphanage received the packages, and a correspondence began between Captain R. W. Denbo, USN, commanding officer of *Wasp*, and Kim Chu Kyung, creator and director of the orphanage.

Kim's first letters told of overcrowded housing facilities with 50 orphans living in one five-room house which also must accommodate the orphanage personnel.

At the outbreak of the Korean conflict in June 1950, Kim took refuge in Pusan.

"There I witnessed a number of orphans wandering through streets to look after food. I felt very ashamed just looking at the miserable sights without doing anything for them." Kim sold all his possessions, bought two tents and Sung Kwang Won had its beginning.

NAVYMEN ON BOARD *USS Lake Champlain* (CVA 39) relax in home-like atmosphere of new crew's lounge that was converted from storage room.

Remodeling Job On Champlain's *Lounge*

The official re-opening of the crew's reception room aboard USS *Lake Champlain* (CVA-39) now enables enlisted men on board to have an off-duty "more home-like" lounge room.

In three motnhs' time, plans were made and completed for the remodeling and reopening of the room which had previously been used as a ship's store for foreign merchandise.

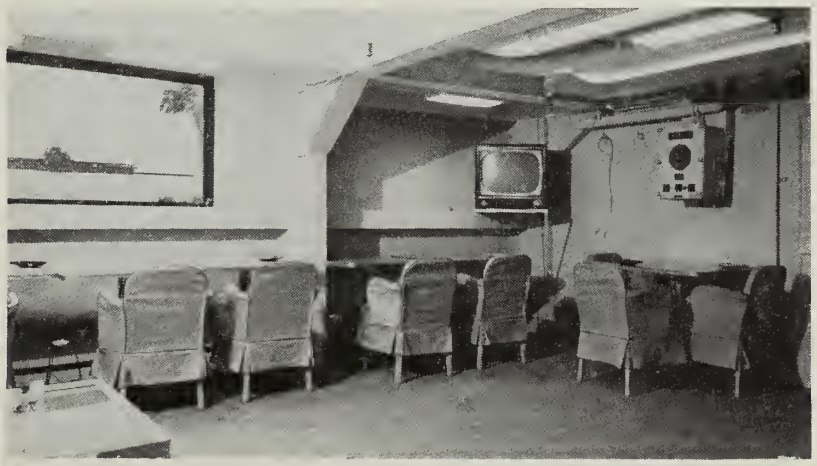
Planning arrangements were handled by the Recreation Council and later turned over to Special Services.

Joint actions of the Special Services and Supply Departments made it possible to arrange for interior decorators from Jacksonville, Fla., to come aboard and submit color schemes and ideas for layout.

Several departments aboard painted and arranged the room.

Soft chairs covered with aquamarine cloth and davenports upholstered in leatherette now harmonize with the beige colored bulkheads and the dark brown bulkhead-to-bulkhead carpet. Large cocoa-bark cloth drapes have also been installed to give the room a comfortable appearance. Modern floor lamps and ash receptacles have also been installed.

Several end and coffee tables are located in the lounge as well as a TV set which can be used in port.



NAVYMEN THROUGHOUT the Fleet will have the opportunity to compete for positions on the 1956 Olympic team.

Navy Athletes Prime for Olympic Games

THE 1956 OLYMPIC YEAR will begin this month when the Winter Olympic Games are held in Cortina d'Ampezzo, Italy, from 26 January to 5 February. The summer Olympic games are scheduled for 22 November to 5 December in Melbourne, Australia (as you know, the seasons are reversed below the equator).

Events scheduled for the winter games include *skiing, bobsledding, speed skating, figure skating* and *ice hockey.*

• In the skiing event, competition is slated in downhill, slalom, cross-country and relay races for both men and women. The downhill skiing course for men is one and three quarters miles long and has a vertical drop of 3117 feet over that stretch.

• The men's and ladies' giant slalom starts from an altitude of 7234 feet and descends through fine narrow and broad valleys, covering a distance of one and a quarter miles with a vertical drop of 2000 feet. In the cross-country contest, races for men will be of 18-, 30-, and 50-kilometers.

• The bobsledding event includes both the two-man and four-man sleds. The bobsled track at Cortina is rated as the fastest in the world. It covers 1868 yards with a vertical drop of 540 feet. There are 16 curves on the track with grades from nine to 12 meters.

Some 30 Navymen have requested an opportunity to try out for spots on the American team in the winter games. Results of how these men fared in the winter games, if they are selected to the American team, will be reported in ALL HANDS.

The winter games were first introduced into the Olympics in the IV Olympiad in 1908 in London, England. The sport scheduled in that first winter game was ice skating. In 1912, ice hockey was added.

The first really formal Winter Olympic Games were held in 1924, when more than 1000 athletes gathered at Chamonix, France, for the games. In subsequent years, the winter games have been held in St. Moritz, Switzerland; Lake Placid, N. Y.; Garmisch-Partenkirchen, Germany; and Oslo, Norway.

Unlike the winter games, the regular Olympic Games have a recorded history back to 776 B.C. In those ancient times, the big events were the marathon races, javelin throw, and other track and field events. Today, these events still hold the spotlight in the Olympic Games.

From the time of their early inauguration, the Olympiad was held until suppressed in 394 A.D. by the Emperor Theodosius. For more than 15 centuries, these games were "dead" until around 1890 when a young (28) Frenchman, Baron Pierre de Coubertin, had the idea of reviving the games.

The improvement of the world's youth was the Baron's first interest. But he also had another idea. The games would not only be a revival of the historic character of the Grecian games, but would also be tremendous gatherings of the peoples of the different countries of the world. In meeting and living with the people from these various countries for a short while, it would be a great influence in furthering the cause of international understanding and good will.

At the Olympic Congress of 1894, the 79 delegates from the different countries planned to stage the first modern Olympic Games in 1896 in Athens, Greece. The ancient Stadium of Herodis was remodeled and used as the site of the games.

The honor of being the first modern Olympic Champion went to James B. Connolly. He won the running triple jump, the first event that was decided. As in the present-day Olympics, when an event is completed, the flag of the winner's country was raised to the top of a pole and a military band played the national anthem of that country.

The Navy really joined wholeheartedly with the Olympic organization in 1920. Tryouts were held in some of the sports and a number of Navymen were selected. The Navy group was transported to the Olympic Games at Antwerp on the cruiser USS *Frederick*. This ship remained in Antwerp for the duration

IN BOTH WINTER AND SUMMER sports the Navy expects to have men trying this year for world honors.

of the 1920 Olympic games.

The big news of the 1920 Olympic Games, so far as the Navy was concerned, was the Olympic victory scored by the Naval Academy's eight-oared shell. The Navy crew consisted of Midshipmen V. V. Jacomini, bow; E. D. Graves, W. C. Jordan, E. P. Moore, A. R. Sanborn, D. J. Johnson, V. J. Gallagher, C. W. King, stroke; and S. R. Clark, coxswain. Thirty-two years later, another great Navy crew was destined to follow in the wake of the 1920 group.

This VII Olympiad also introduced two now common opening day ceremonies. The oath of amateurism was taken for the first time by the assembled athletes and the Olympic flag was unfurled. The flag has five entwined circles, multicolored on a white background, symbolic of the five parts of the world united in Olympic meeting.

The games at Antwerp were held in a military setting. In keeping with this trend, the U. S. flag was escorted by a uniformed color guard. Members of this guard were Midshipman E. E. Wilkie, USN, a wrestler; Lieutenant Harry S. Liversedge, Marine shot-putter; Captain Alexander M. Weyand, Army wrestler; and Lieutenant Samuel G. Stewart, Army boxer.

Two other Navy athletes also did well in this Olympiad. Commander C. T. Osburn won the championship in the 300 meters military rifle match and Navyman Frank J. Shea finished fourth in the 400 meter.

In the 1932 Olympic Games in Los Angeles, Calif., Navy Lieutenant George C. Calnan, who was competing in his fourth Olympic Games, represented the 5000 assembled athletes in taking the oath of amateurism.

He went on to win medals in the epee fencing event.

The 1952 Olympic Games had great representation among athletes from the Navy and the other branches of the service. It was estimated that about 20 per cent of the athletes on the American team were from the armed forces.

The events in the modern Olympic Games are quite similar to those staged in ancient Grecian games. The big event, of course, is *track and field.* Other events scheduled for the 1956 Olympiad include: *boxing, cycling, fencing, gymnastics, pentathlon, rowing, rifle and pistol, swimming, wrestling, yachting, basketball, soccer, canoeing, water polo, equestrian competition, field hockey, trapshooting* and *weightlifting.*

In the 1952 Olympics, Navy athletes more than held their own. Navy boxer Ed Sanders won the heavyweight title, the first time any American had won this championship. A great Navy crew won the championship in the eight-oared shell race. Jack Davis, now an ensign on active duty, tied for first place in the 110 meter hurdles with Art Bernard, SN, USNR, placing third. Lieutenant Ken Weisner, DC, USNR, took second place in the running high jump and Marine Corporal Bill Miller, while breaking the Olympic javelin throw record, placed second to Cy Young.

Bob Mathias, a Marine Reservist, won the championship in the decath-

LOGICAL SPOT FOR a Navy Olympic win is in boxing, a sport sailors excel in. Here, Rudy Sawyer, TN, wins '55 Inter-Service Middleweight title.

lon, rated as one of the toughest of all. In this, the athlete must perform in 10 different events: 100-meter dash, 110-meter hurdles, 400-meter sprint, 1500-meter run, discus throw, pole vault, shot put, running broad jump, running high jump and javelin throw.

Another of the "toughies" in the Olympics is the pentathlon. The five events in this grueling program are the running broad jump, 200-meter dash, discus throw, 1500-meter run and javelin throw.

This pentathlon should not be confused with the Modern World Pentathlon, which is strictly a military sports event. In the Modern World Pentathlon, the competitor must ride horseback over 500 meters of rough terrain, swim 300 meters, run two miles cross country, shoot a pistol rapid fire and fence. This event is held every year.

Arrangements are already in operation to permit Navymen to try out for places on the American Olympic team, both for the winter games and the summer games "down under." Before the final tryouts, the candidates will be sent to a training site to get into the best possible physical condition. Since the summer games will be held in November and December, many college athletes won't be able to make the trip to Australia. As a result, the Navy, along with the other services, is beating the bushes to rustle up the finest athletic talent available.

Marine Is Triathlon Champ

Master Sergeant William F. Knupple, USMC, of Camp Pendleton, Calif., has been named winner of the second Inter-Service Triathlon held last fall at Fort Sam Houston, Texas. The 36-year-old Marine amassed 2689 points in the three events of the competition.

Second place was won by PFC George H. Lambert, USAF, of the 417th Engineering Aviation Brigade, Ashiya, Japan. First Lieutenant Jerome Furey, Army representative from Fort Devens, Mass., finished third.

The two Navy competitors in the Triathlon this year finished up ninth and 12th. Albert Ray, AT3, USN, of Anti-Submarine Squadron 15 at NAS San Diego, Calif., was ninth with 1543 points and Samuel Gilbert, AT2, USN, also of NAS San Diego, was 12th.

Since the Triathlon is primarily designed to discover new talent, previous winners are not eligible to compete. However, these previous victors, among them Lieutenant William J. Andre, USN, are at present in training for the next Olympics' Modern Pentathlon events.

Master Sergeant Knupple scored 880 points in the pistol shoot, 905 points in the 200-yard free-style swimming and 904 points in the two-mile run. Top men in each event were: pistol shooting—Furey, 950 points; swimming — Army Private Hector Proventud, 1020 points; running—Marine Sergeant John Tibbetts, 1045 points.

BatCruLant Golf Champs

The golf team from USS *Wisconsin* (BB 64) captured all honors in this year's 72-hole BatCruLant Golf Tournament played over the Norfolk Naval Base golf course.

The team title was all but decided in the first day of competition as the Badger team posted a 40-stroke lead. This was increased to an impressive victory margin of 81 strokes in the last day of the tournament

Larry King, John Eles, J. F. Monahan, Ben Parker and Conrad Bellamy finished in that order for *Wisconsin*, with the low four scores counting in the team total.

Teammates King and Eles battled for individual honors in one of the tourney's exciting highlights. Eles fired a first round 77 to take a one-stroke lead which he held through the second 18 holes.

King, however, came back with a 76 on the third day as Eles slipped to an 82, giving King a five-stroke lead at the 54-hole mark. On the final day of the tourney, Eles picked up the needed strokes to tie King at the end of the tournament.

Finishing behind King and Eles were Charlie Grady of USS *Newport News* (CA 148); R. G. Barkhauser, also of *Newport News;* and J. F. Monahon of *Wisconsin.*

In the team championships, USS *Newport News* was second followed by USS *Mississippi* (AG 128).

Atlantic Touch Football Champs

The team from ComAirLant won the Atlantic Fleet touch football championship by defeating the Fleet Marines 38-21 in the title game at Norfolk's Convoy Escort Piers. This marked the second consecutive year that AirLant, represented this year by the Fleet Airborne Electronics Unit, has won the title.

Knot-Tying Is a Navy Sport Too

Many are the knots that Navymen through the years have devised for the lines of navy ships.

The art of knot-tying is also a Navy sport but with a different twist, as these photos illustrate.

NTC Bainbridge sailors have proved themselves to be among the best of the "human knot-tyers" by twisting their fellow salts through a series of hitchs that caused their shoulders to flatten out on the deck.

It's the ancient sport of wrestling we're talking about, and the mat men are of the Bainbridge wrestling team which copped the fifth Naval District grappling crown. *Left:* The face belongs to Lennie Owens, captain of the Bainbridge team. His opponent was Ruddy Yocum who tied a few knots of his own to end the match in a draw. *Right:* Norfolk Naval Base wrestler Ed Kahling is pinned by Roland Rojas.

THE BULLETIN BOARD

Prepare Now for Advancement from EM to Officer Status

If you're an enlisted Navyman or Wave on active duty, you may, if qualified, compete for advancement to commissioned officer status as USN ensign in the line or staff corps. The period for application is from 1 July to 1 September of each year, but *now's* the time to start preparing yourself for selection in the coming year. Below, you'll find reference to a bibliography which will help you. Also, check the list of qualifications to see if you'll be eligible.

Navymen with outstanding qualifications who are interested in the opportunity to compete for advancement to commissioned officer status may make application for appointment as USN ensign in the line or staff corps. Waves are also eligible for the program.

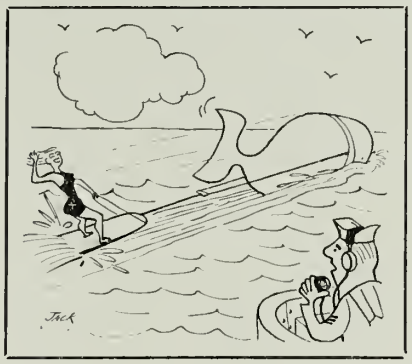
Generally speaking, you are eligible if you are:

- A citizen of the United States and serving in the Regular Navy.
- At least 19 and under 32½ years of age on 1 July one year after date of application, in the case of male candidates.
- At least 21 and under 29½ years of age on 1 July one year after date of application, in the case of women.
- Physically qualified for original appointment in the line or staff corps according to standards set by the BuMed *Manual.*
- Able to meet the educational and service requirements listed below.

All applicants, except those for Civil Engineer Corps, must have: 1) successfully completed four semesters (two years) of work toward a degree at an accredited college or university; or 2) have satisfactorily completed the USAFI Educational Qualification Test 2CX before 1 Jan 1954; or 3) be a high school graduate or have the service-accepted equivalent and have a GCT or ARI score of at least 60. CEC applicants must have earned a minimum of three years of college credits toward an engineering degree at an accredited engineering school.

Here are the rules concerning service and active duty:

- Warrant officers and chief petty officers (USN) must have completed at least two years of service in the Regular Navy immediately preceding the date of their application. If you are in this category you must have had at least three years of service in any of these grades in the Regular Navy by 30 June of the year in which appointed.



". . . Oh, never mind . . ., you wouldn't believe me anyway . . ."

- Enlisted applicants, including CPOs (see below), must have completed at least three years of continuous USN service immediately preceding the date of initial application. If included in this category, you must have had at least four years' service in the Regular Navy immediately before the time of appointment.
- If you are a CPO you have the option of meeting either of the above service requirements.
- Naval Reserve time, whether active or inactive, cannot be used in determining service requirements for this program.
- You must have had no record of conviction by a general, special or summary court-martial for at least two years before the date of application.
- You must have remaining at least one year of obligated enlisted service upon entering the program. If you have less than this period, you are authorized to extend voluntarily for one year, provided that the sum of your voluntary and involuntary extensions do not total more than four years.

There is no dependency restriction for men. A woman will be ineligible if she is responsible in any way for a child under 18.

The program is a recurring one. Here is what happens:

On or after 1 July of the year preceding the calendar year in which an appointment can first be made, you submit to your commanding officer a written request to be considered as a prospective applicant. Your commanding officer furnishes your name to the Naval Examining Center, Great Lakes, which then returns an Officer Selection Test, practice booklet, and instructions.

You, and all other applicants, will take your test on 1 September or, if that date falls on a Saturday, Sunday or holiday, the next regular working day. The examinations — there are two parts — will be of the objective type, designed to evaluate the more important mental abilities required for a successful career as a commissioned officer. They will include: Aptitude, history, science, mathematics and English.

At some time between 1 July and 1 September, you will be given a personal interview by a local board of officers. The board will assess your personal qualifications to determine whether you possess officer-like qualities. On or about this time, you will also take your physical examination.

On 1 September you will submit your formal application, including loyalty certificate, to your commanding officer. At this time, he will make his final evaluation as to your qualifications and will complete your Evaluation Sheet or Fitness Report and forward the material to the Chief of Naval Personnel.

At a later date, eligible applicants will be considered by a selection board. Men who are selected will be ordered to Newport, R. I., for the 16 weeks of General Line officer candidate instruction. Women will be ordered to the Newport Officer Candidate Training (W) course.

Further details concerning this program may be found in BuPers Inst. 1120.7B. The instruction also contains an extensive bibliography of reference material that is helpful.

These Shipping Activities Will Help You Move Your HHE

If you have recently received, for the first time, orders to sea duty or duty overseas, you have undoubtedly been startled by the number of problems you must suddenly face. How do you ship your household goods? What papers do you need? Whom do you see? These are questions which have even caused difficulties for oldtimers with many years of service. Here's a quick outline for the experienced and inexperienced.

First of all, if you are ordered to an overseas duty station you should try to learn as much as you can about housing, living conditions, and furniture requirements you will encounter at your new duty station. The Bureau of Naval Personnel has a number of publications on this subject and copies may be obtained by writing to the Chief of Naval Personnel (Pers G212), Washington 25, D. C.

Then, after you decide what you want to ship and where you want to ship it, you should contact the nearest household goods shipping activity.

If you are ordered to an overseas duty station or to sea duty, the permanent weight allowance of household goods may be shipped to your duty station providing there are no restrictions, or you may ship to a selected point, or to nontemporary storage. There's a possible danger here. Frequently, naval personnel ordered to a vessel or mobile unit fail to check the home yard or home port and request shipment of household goods to the place where the vessel may be operating at the time. Then they discover the real home yard or port is elsewhere.

If shipment is made to a selected point, including nontemporary storage, *no further shipment* of that same lot is authorized at government expense. There is one exception: Further shipment will be made if you have a certificate from the overseas area commander or your prospective commanding officer stating that it is anticipated that shipment of household goods or dependents travel to your duty station will not be authorized within 20 weeks. This certificate is the official document required to support reshipment of your household goods from the designated point to the overseas duty station.

Occasionally, orders will require you to report to a vessel or mobile unit at a specified location. As mentioned above, the specified location may not necessarily be the home yard or home port of the vessel or unit. Shipment of household goods to that place constitutes shipment to a selected point, and reshipment to the home yard or home port at government expense would not be authorized. Therefore, be sure you know which is the home yard or home port of your vessel before requesting shipment. Your transportation officer should be able to help you, or a letter from you to your prospective commanding officer will get you the desired information.

Applications for shipments of household goods should be submitted to the designated shipping activity nearest the location of your household goods. For your convenience the following is a list of designated shipping activities located throughout the United States. It is suggested that you keep this list handy in your ship or station files. It will be helpful when you again make a shipment of household goods.

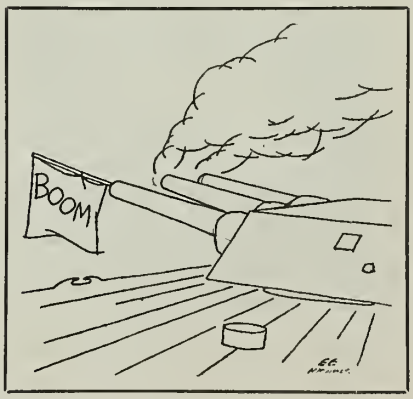
HHE Shipping Activities

- *First Naval District*

Portsmouth Naval Shipyard, Portsmouth, N. H.
Bastan Naval Shipyard, Boston, Mass.
Naval Supply Depot, Newport, R. I.
Naval Air Station, Quonset Paint, R. I.
Naval Air Statian, Brunswick, Maine.

- *Third Naval District*

Naval Supply Facility, Brooklyn, N. Y.
Naval Supply Depot, Scotia, N. Y.
Naval Supply Depot, Bayonne, N. J.
Naval Air Station, Niagara Falls, N. Y.
Naval Submarine Base, New Londan, Conn.



Naval Ammunition Depot, Earle, N. J.

- *Fourth Naval District*

Philadelphia Naval Shipyard, Philadelphia, Pa.
Naval Supply Depot, Mechanicsburg, Pa.
Naval Air Develapment Center, Johnsville, Pa.
Naval Air Station, Atlantic City, N. J.
Naval Air Station, Lakehurst, N. J.
Naval Air Station, Calumbus, Ohia.
Naval Air Station, Akron, Ohio.
Navy Finance Center, Cleveland, Ohia.

- *Fifth Naval District*

Naval Training Center, Bainbridge, Md.
Naval Supply Center, Norfolk, Va.
Naval Auxiliary Air Station, Chincateague, Va.
Naval Ordnance Plant, South Charlestan, W. Va.
Naval Mine Depot, Yorktown, Va.
Narfalk Naval Shipyard, Portsmouth, Va.
Naval Ordnance Plant, Louisville, Ky.
Marine Corps Air Station, Cherry Paint, N. C.

- *Sixth Naval District*

Naval Air Station, Memphis, Tenn.
Naval Air Station, Birmingham, Ala.
Naval Air Station, Jacksonville, Fla.
Marine Corps Air Statian, Miami, Fla.
Naval Air Station, Pensacola, Fla.
Naval Station, Key West, Fla.
Navy Mine Countermeasures Statian, Panama City, Fla.
Naval Auxiliary Air Station, Sanfard, Fla.
Charleston Naval Shipyard, Naval Base, Charleston, S. C.
Naval Air Station, Atlanta, Ga.
Naval Air Statian, Glynca, Brunswick, Ga.
Naval Station, Green Cove Springs, Fla.

- *Eighth Naval District*

Naval Station, New Orleans, La.
Naval Air Station, Corpus Christi, Tex.
Naval Air Station, Dallas, Tex.
Naval Station, Orange, Tex.
Naval Ammunition Depot, McAlester, Okla.
Naval Air Technical Training Center, Norman, Okla.

- *Ninth Naval District*

Naval Air Station, Minneapolis, Minn.
Naval Air Station, Grosse Ile, Mich.
Naval Supply Depot, Great Lakes, Ill.
Naval Air Station, Lambert Field, St. Lauis, Mo.
Naval Air Station, Hutchinson, Kans.
Naval Air Station, Olathe, Kans.
Naval Air Station, Lincoln, Nebr.
Naval Ammunition Depot, Hastings, Nebr.
Naval Ammunitian Depat, Crane, Ind.
Naval Ordnance Plant, Indianapalis, Ind.
Naval Air Station, Denver, Colo.

- *Eleventh Naval District*

Naval Supply Depot, San Diego, Calif.
Naval Supply Depot, San Pedro, Calif.
Naval Advanced Base Depot, Port Hueneme, Calif.
Naval Ordnance Test Station, China Lake, Calif.
Naval Air Facility, Litchfield Park, Phoenix, Ariz.
Naval Auxiliary Air Station, El Centro, Calif.

- *Twelfth Naval District*

Naval Ammunition Depot, Hawthorne, Nev.
Naval Supply Center, Oakland, Calif.
Mare Island Naval Shipyard, Vallejo, Calif.
Naval Supply Depot, Clearfield, Utah.
Stockton Annex, Naval Supply Center, Oakland, Stockton, Calif.
Naval Postgraduate School, Monterey, Calif.

- *Thirteenth Naval District*

Naval Supply Depot, Seattle, Wash.
Puget Sound Naval Shipyard, Bremerton, Wash.
Naval Supply Depot, Spokane, Wash.
Naval Air Station, Whidbey Island, Wash.
Naval Station, Tacoma, Wash.
Naval Station, Tongue Point, Ore.
Naval Ordnance Plant, Pocatello, Idaho.

- *Potomac River Naval Command*

Naval Proving Ground, Dahlgren, Va.
Naval Gun Factory, Washington, D. C.
Naval Powder Factory, Indian Head, Md.
Naval Air Station, Patuxent River, Md.

- *Seven River Naval Command*

Naval Academy, Annapolis, Md.

Recruiting stations (located at points not within a reasonable working distance, approximately 100 miles, of a designated naval activity) have the same status as designated shipping activities that have been listed above.

Demolition Incentive Pay is Defined by BuPers Instruction

Duty involving the demolition of explosives and entitlement to demolition incentive pay have been fully defined in BuPers Inst. 1320.5A.

In clarifying previous directives, the new Instruction describes demolition duty as duty involving the demolition of explosives by members *who are acting under competent orders* and *whose primary duty involves one of the following*: (1) using explosives to demolish underwater objects, obstacles, or explosives; (2) recovering and rendering harmless (either by disarming or demolition) explosives which have failed to function as intended or which have become a potential hazard; (3) participating in proficiency training or instructional training (either as a student or an instructor) for the duties described in (1) and (2) above (these may be either field or Fleet training duties, but must involve use of live explosives); and (4), experimenting with or developing tools, equipment or procedures for the demolition or disarming of explosives, provided live explosives are used.

It should be noted that demolition of explosives which have been surveyed because of deterioration or obsolescence is not included in the above definitions.

The Instruction also points out that personnel in the following categories will receive incentive pay only for the months in which demolition duty is actually performed, instead of for the entire period of duty under competent orders: Underwater demolition teams; explosive ordnance disposal units; members in explosive ordnance disposal billets authorized by this Bureau; or duty or duty under instruction involving demolition of explosives as a primary duty at the Naval School, Explosive Ordnance Disposal. Other officer and enlisted personnel who actually perform demolition duty as a primary duty under competent temporary or temporary additional duty orders are entitled to receive incentive pay for the duration of such orders.

"Competent orders" for demolition duty have been defined by the Chief of Naval Personnel as "orders issued in accordance with Article C-5301, *BuPers Manual*, including temporary duty and temporary additional duty orders, which specify duty involving the demolition of explosives as a primary duty."

WAY BACK WHEN

Navy's Early Shipyards

In today's Navy, duty as commander of a naval shipyard is limited to Engineering Duty Officers, and they are likely to spend months learning the ins and outs of their myriad duties. Things were different back in 1801, however, when a new naval shipyard was being readied for service at Charlestown, Mass., a suburb of Boston. That yard's first superintendent was the Navy's second-ranking captain, and his "briefing" consisted of a short letter which outlined his duties.

The captain was Samuel Nicholson, who had joined the Continental Navy in December 1776, and accounted for a number of prizes during the Revolution, including the 20-gun *Jackall* in the spring of 1782, last prize seized by a Continental Navy ship.

When the Navy was reorganized in 1794, Nicholson was appointed second on the list of captains and ordered to superintend the building of the frigate *Constitution*. After completing and making two cruises in "Old Ironsides," Nicholson (in May 1799) was ordered to superintend construction of a 74-gun ship-of-the-line at Boston.

Then, in a letter dated 12 Jun 1801, Nicholson was appointed "to superintend the New Navy Yard at Charlestown," and his duties were outlined substantially as follows:

1) To remove, preserve and safekeep all the timber, plank and stuff of every kind belonging to the U. S. from the old Navy Yard in Boston to the New Yard near Charlestown, being responsible that it be so placed as to be safe from injury from the sun and so that it may be properly seasoned when wanted;

2) To receive from the captains of ships actually in service "indents" (requisitions) of the rigging and stores of every kind (except purser's) needed, carefully examining same to determine the need therefor and striking out unnecessary articles;

3) To find out what repairs in-service ships require—what stores, sails, blocks and rigging they need—and certify them to the Naval Agent, who will order same to be done or made under your direction with due observance of economy, but "without an improper parsimony;"

4) For this service you will be allowed the rate of $1200 per annum, to commence the first of July next and to be paid quarterly;

5) It will also be your duty "to report any embezzlement if any have been made on the public property to this Department, but no report will be received that cannot be indisputably proved."

Although Nicholson had little use for paperwork, and kept almost no records during his tour of duty, he apparently made a successful shipyard superintendent, remaining in charge of the Boston yard until his death a decade later.

If Semi-Tropics Is Your Dish, You'll Like Puerto Rico

No matter where you're stationed, you'll find good and not-so-good features. No place is a perfect paradise, nor are the "rough duty stations" as bad as they are frequently pictured. You'll find in the reports of living conditions published from time to time in All Hands that the Navy—particularly in overseas duty stations—has done as much as possible to make your duty pleasant and desirable. Here's the story on Puerto Rico, Roosevelt Roads and San Juan.

Climate—Puerto Rico enjoys a fine semi-tropical climate. Temperatures range from 65 to 75 degrees during the winter months and from 75 to 85 in summer. The island is fanned constantly by northeast trade winds which offset the generally high humidity. Rainfall is fairly heavy, but there is no season of incessant precipitation. It is said that sun shines at some time on all but five days of the year. Rain falls most frequently between midnight and morning.

Housing—Naval personnel must request permission from the Commandant, Tenth Naval District, for dependents to enter the area; granting of such permission will depend upon the availability of quarters.

There are sufficient quarters available at Roosevelt Roads for all personnel, both officer and enlisted, to have their dependents accompany them if ordered to the Naval Station. Quarters, messing and recreational facilities for single officers at Roosevelt Roads, as long as that station remains in its present partial maintenance status, are considered inadequate and uncomfortable, while those for married officers are quite adequate and comfortable. For that reason, and in the interest of morale, the commanding officer prefers and has requested that only officers with dependents be ordered to that command. There are no desirable houses or apartments outside the station.

For forces afloat whose home port is within the San Juan area, the quarters for enlisted men and families are considered adequate in the San Patricio housing development. Facilities are available for officers also. Rental of housing in San Juan proper is considered extremely high and does not come within the present housing allowance.

Household Effects—All quarters are furnished with stoves, refrigerators, beds and mattresses, and other furniture sufficient to satisfy basic needs. Occupants are required to take along as "hold baggage" a sufficient supply of pots, pans, dishes and silverware to get by on until other belongings arrive. Other furnishings may either be taken along or purchased at the Navy Exchanges or at local stores. There are many establishments selling good furniture in the larger towns of Puerto Rico, but except for mahogany articles, prices are higher than at home. If you bring any of your own furniture, it should be of a type suitable for use in the tropics.

Automobiles — A private car will come in very handy in Puerto Rico, especially if you are going to Roosevelt Roads, where it is almost a necessity. Private cars may be shipped at no expense on naval water transportation, on a space-available basis by PO3s with more than four years' service and by higher rates. Insurance to cover any possible damage in transit should be obtained before shipping, and adecarried after arrival. Cars should be in good condition. Wear is likely to be rather rapid; repair facilities are expensive and not of the best.

Clothing—Cotton and rayon washables are comfortable for everyday wear throughout the entire year. During the winter months the evenings are rather cool, and slightly heavier clothing may be desirable. Informality is in order during the daytime, with sun dresses, shorts, play clothes and bathing suits all on

Flyer Lands Blindfolded on Flattop

Ever hear of a flyer taking off from the after fueling station aboard a carrier? Well that's daily routine aboard USS *Leyte* (CV 32) for one flyer.

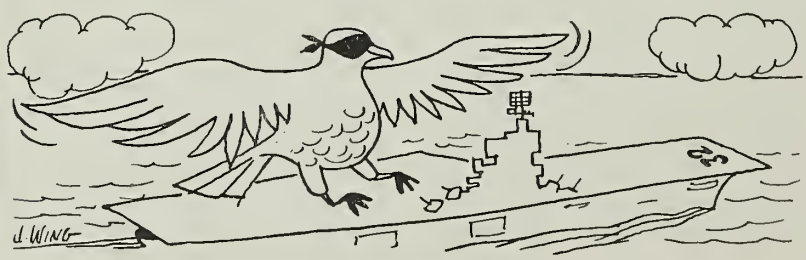
It all began some weeks ago when a spotted red and white pigeon (he must be a "carrier pigeon") zeroed in on the *Leyte's* flight deck and made a 4.0 landing.

Once he had reported aboard, "Ace," as he was quickly named, took up residence in the gig, but he was soon moved to the Third Division gear locker. The men in the Third Division constructed a red and white hangar for the flyer and managed to find enough food to keep him happy.

Everyone agreed that the bird would soon be on his way as soon as he found his strength and so they began to encourage the bird to make a "flyaway." At first the attempts were made from the after fueling station where a group gathered for the catapult of the bird into the air. Each take-off was successful but "Ace" wouldn't be left behind. After a few minutes of exercise he would return to the ship and take up his soft life again.

One day he was blindfolded, taken up an elevator and released on the flight deck for a full-deck launch. His aerial navigation was good, too good in fact, and he "homed right in" on the after fueling station and was soon back in the comforts of his private hangar.

At last report "Ace" had become a full fledged crew member and was well on the way to becoming the best known flyer aboard the ship. The only thing that has the crew worried is the fact that the bird may be breaking a regulation. They aren't sure that he isn't a she and *Navy Regulations* are strict about having females aboard ship.



the "required" list. Evening clothes are optional, but are often worn at dances and other social affairs. A lightweight raincoat is desirable.

Food—Commissaries carry an adequate line of almost all foods. Shortages occur in certain items from time to time when there is a long period between supply ship arrivals, but stocks are generally adequate. Frozen fresh milk can now be had, as well as powdered and canned milk. Pasteurized fresh milk is delivered by local dairies at a moderate price. Local fruits and vegetables are plentiful in season, and are reasonable in price. There are many well stocked grocery stores in the San Juan area.

Medical Care—Station dispensaries offer limited outpatient care, including prenatal care, for naval dependents. Those requiring inpatient treatment are hospitalized at the U. S. Army Rodriquez Hospital near San Juan. This institution has all normal hospital facilities for medical and surgical service. Dependents should have all dental effects corrected before entering Puerto Rico. Naval dental treatment is not available except in emergencies.

Education — At Roosevelt Roads there is a station school for grades one through twelve. The school compares favorably with public schools in the States. There are two school houses, each with two rooms, plus a small laboratory and a playground and recreation area.

Naval Station, San Juan, possesses a school offering a standard curriculum in grades one through twelve. There is also a nursery school and kindergarten there, which may be attended upon payment of a varying tuition charge, currently ten dollars a month per pupil. High school students will find available several good private schools in San Juan. The University of Puerto Rico offers good college courses as does the College of Mechanical Arts.

Religious Facilities—Protestant and Catholic services are conducted weekly at station chapels. English-language services in some denominations are held an San Juan.

Banking — Dependable banking concerns, including branches of large international banks, are located in San Juan. Reliable, locally owned banks are operated in most communities in Puerto Rico. U. S. currency is used. It is advisable to open a local bank account, since a service charge is made on checks drawn on banks in the States.

Recreation — Movies are shown every night at Roosevelt Roads. There is a softball diamond equipped with lights for night games, a baseball diamond, a nine-hole golf course, a skeet range, three tennis courts, an outdoor basketball court, two single-wall handball courts, four bowling alleys, a swimming pool and two swimming beaches. There is an officers', a CPO, and EM club that occasionally hold dances.

A broad recreation program is set up at San Juan, including service clubs, a gymnasium, a library, movies, swimming, baseball, tennis, basketball, volleyball, golf, bowling, night clubs—and sightseeing.

Electronics Is Speeding Up Your Duty Reassignment

The Bureau of Naval Personnel has added a new labor-saving, time-saving machine to its staff of mechanical experts as part of the Navy's current trend to reduce clerical workload by using machines wherever it is possible.

The new machine, which is called a *transceiver*, operates on a telephone wire circuit and is the most recent development in electronic devices for use in clerical work. The transceiver utilizes a punch card system that eliminates the pages of typewritten work previously required to notify the Bureau of a man's availability for change of duty and the return correspondence from the Bureau to the command informing them of the man's new duty assignment. The electronic speed of the new machine eliminates the time previously involved in using the mails, dispatches or messenger services.

The transceivers are used for making personnel assignments. For example, a few months before you are eligible for sea duty your command will notify the Personnel Accounting Machine Installation (PAMI) nearest them that you will soon be available for change of duty. At PAMI a card is punched out on a transceiver that gives your history in brief—your name, service number, rate, home port preference, first, second and third duty choices, school preference, your service qualifications, and other data.

Simultaneously this information goes to the transceiver in the Bureau of Naval Personnel where it is punched out on a duplicate card just as it appears at PAMI. From this card the Bureau obtains all the information it needs to assign you to your next tour of duty. In the Bureau the card is again placed in the transceiver and your new assignment punched out—this same information is simultaneously received at PAMI and the assignment card is forwarded to your command where your orders will be made up. There is a telephone connection between transceivers that enables operators to add any specific information that may be necessary and to make occasional checks to see that transceivers at both ends are working properly.

At present the Navy has transceivers in Washington, D. C., and at Norfolk, Va. Around the first of the year there will be transceivers in San Diego, Calif., and San Francisco, Calif., which will serve all the commands in the 11th and 12th Naval Districts.

In the near future transceivers will be located in all districts where justification for the expense of the machine can be made. However, in most cases where the clerical workload is heavy, the time and labor saving advantages of the machine will easily offset the cost of it. A representative from the Bureau will soon visit each Naval District to determine justification for installing the trasceivers and to assist in setting them up, training personnel in their use and explaining the new punch card system.

Cards will be sent to individual activities for them to fill out and complete on each man in their command. They will be forwarded to the PAMI nearest them at the appropriate time to indicate that a man will soon be available for change of duty. In cases where the distance between the command and the nearest PAMI is great, the cards will be forwarded to the Bureau to facilitate handling.

Pointers on Living Conditions in Japan for the Navyman

If your next duty station is Japan, you may want to take your family with you. If so, you'll be interested to know that the Personnel Transportation Division of this Bureau has drawn up a list of eligibility requirements, steps to be taken, and other information concerning concurrent travel and the housing situation in Japan.

Details may be found in BuPers Inst. 4650.6A. Other information concerning living conditions in Japan may be found in the April 1955 issue of All Hands.

If you are considering the advisability of transporting your family to Japan for your tour of duty, here are a few points to bear in mind:

- Living standards vary, and are not so high as those in the U. S.
- Private rentals are expensive and the cost of utilities, particularly electricity, are extremely high. Most heating and cooking is done with kerosene or butane, both of which are somewhat awkward to use. At the same time loose construction of the typical house makes heating difficult.
- Authorities recommend that you report to your duty station and personally view the situation before you bring your family.

Concurrent Travel. When CinCFE grants authority for travel of you and your family to Japan, he delegates authority to ComNavFE to supervise the program. This concurrent travel program applies to Navymen ordered to shore-based activities in Japan, to those ordered to Fleet Air Units based ashore permanently in Japan, and to those ordered to ships and units home-ported in Japan.

Eligibility factors for housing are:

- Officers in the grade of captain and above — concurrent travel is authorized for immediate entry into government quarters.
- Other officers — concurrent travel is authorized to enter approved private rental housing.
- Enlisted — concurrent travel is authorized for those in pay grades E-7, E-6, E-5, and for those in E-4 with over four years' service, to enter approved private rentals.
- Other enlisted — those enlisted personnel in pay grade E-4 with less than four years' service and lower pay grades are not currently eligible for space required travel and hence are not eligible for concurrent travel.

Public Dependent Quarters Because there are an insufficient number of public dependent quarters available, there is a waiting period of from eight to 14 months, depending upon the location of duty station, of all officers below the grade of captain and eligible enlisted personnel. Public dependent quarters are assigned on a point priority system based on the date of departure from the continental United States or date of separation of dependents, whichever is later. The Navy has a limited number of public dependent quarters near all stations. The approximate waiting period is: Tokyo — nine months; Yokohama — nine months; Yokosuka — 10 months; Iwakuni — 10 months; and Sasebo — 10 months. Quarters are adequate and are assigned on a bedroom-requirement basis. Utilitarian furniture is provided.

Hotels. If you travel with your family, it will be necessary to live in a hotel until arrangements can be made to obtain an approved private rental. Average room rent for hotels within reasonable commuting distance is $6 to $12 per day. Meals range from $3 to $6 per day per person. In BuPers Inst. 4650.6A you will find a list of approved hotels by area (Tokyo, Yokohama, Sasebo) within two hours' commuting distance of the Navy activities within that area. If you plan to live in a hotel, written verification of promised accommodations must be obtained for ComNavFE's approval. This certification may be made by the new duty station to ComNavFE without actually forwarding the written reservation; may be made in writing directly from the hotel concerned if you arrange for this feature; or may be forwarded to ComNavFE direct by you.

Approved Private Rentals Private rentals are inspected and approved by the cognizant Area Housing Commander to make sure they meet the minimum standards of construction, safety and health. Generally speaking, they are scarce, substandard in size and construction, and expensive as regards rental fees and utility costs. If the unit you select does not meet the minimum acceptable standards for approval, it is customary in Japan for the tenant to bear the cost of any repairs or improvements necessary. Rents, which range from $80 to $160 per month, do not include utilities which average about $20 per month during mild weather and increase during the winter. Electricity is extremely expensive in Japan, necessitating the use of kerosene or butane for cooking and heating. Because of the construction of houses, many families find it necessary to use more than one space heater to provide adequate warmth during the winter months. Space heating units of all kinds must be secured at night because of fire and asphyxiation. Private rentals are furnished with any type furniture. Couches, easy chairs, beds, chests of drawers, dining tables, chairs and the like can usually be obtained from government furniture issue for private rentals. In "zero" supply are washing machines, refrigerators, cook stoves, space heaters and draperies.

Commuting Commuting is a major problem even though only relatively short distances are involved. Rough narrow roads and congested areas peculiar to Japan make traveling tedious and time-consuming. In some areas there is no bus nor train service. Wear on private vehicles is con-

Commuting Time and Mileage Chart

FROM: / TO:	TOKYO	YOKOHAMA	YOKOSUKA	KAMI SEYA	ATSUGI	OPPAMA	MC GILL
TOKYO	—	0:50 (18)	2:00 (43)	1:10 (30)	1:40 (39)	—	—
YOKOHAMA	0:50 (18)	—	1:00 (25)	0:45 (15)	0:50 (18)	0:40 (20)	1:00 (35)
YOKOSUKA	2:00 (43)	1:00 (25)	—	1:00 (24)	1:15 (32)	0:15 (5)	0:25 (10)
KAMI SEYA	1:00 (30)	0:45 (15)	1:00 (24)	—	0:30 (8)	1:10 (20)	2:00 (26)
ATSUGI	1:40 (39)	0:50 (18)	1:15 (32)	0:30 (8)	—	1:30 (27)	2:30 (34)
OPPAMA	—	0:40 (20)	0:25 (5)	1:10 (20)	1:30 (27)	—	0:50 (14)
MC GILL	—	1:00 (35)	0:25 (10)	2:00 (26)	2:30 (34)	0:50 (14)	—

Note: The numbers in parenthesis indicate miles; commuting time is indicated in hours and minutes.

siderable because of very poor roads and other conditions. On page 48 you'll find a table giving approximate commuting distances and times.

If you are included among those eligible for dependent travel (except captains and above) careful consideration should be given to the expense and discomfort involved. If you still want concurrent travel for yourself and your dependents, you may submit a request to ComNavFE for concurrent travel. Any messages or letters in this connection should be sent to the new duty station for information and additional action as necessary. Your application should include:

- Relationship and ages of all dependents for whom travel is requested.
- New duty station.
- Statement by you that you understand private rental situation in area and accept full responsibility for your decision.
- Statement showing whether private rental accommodations are firm.
- Name of sponsor/agent at new duty station if one is available.

When your application is received, your new duty station will forward to ComNavFE any pertinent comments and recommendations. That station may also appoint a sponsor/agent whenever practicable when you do not have such a person to assist you.

Upon obtaining the approval of ComNavFE, you must submit application for dependent's transportation (SandA Form 33) to ComTwelve and advise the new duty station of estimated time of arrival in Japan.

Public Works, Public Utilities and Communications Courses Ready

Two new officer correspondence courses are now available at the Naval Correspondence Course Center.

Maintenance of Public Works and Public Utilities (NavPers 10747) is applicable to officers of the Civil Engineer Corps. This course consists of 10 points Naval Reserve credit.

Shore-Based Communications (NavPers 10996) consists of 4 assignments, and is evaluated at 8 Naval Reserve credit points.

Application for enrollment should be made on Form NavPers 992 forwarded via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, New York.

School Scholarship Offered to Navy Daughter

St. Margaret's School, Tappahannock, Va., will offer a scholarship to a Navyman's daughter who will be entering high school next year and who would benefit by the school. It is a full tuition scholarship amounting to $325.

The eligibility requirements include ability to do the work offered, character and personality, and need for the scholarship.

Applications may be obtained by addressing a request to the Chief of Naval Personnel (Attn: Pers G-212) Navy Department, Washington 25, D. C., or to the school.

WHAT'S IN A NAME

Barnacles, Champion Hitch-hikers

Cute little rascals when they are barn, microscopic young barnacles have a pair of horns, a single eye and feathery legs for swimming. After about a month of floating in the sea, molting and growing with the other plankton, the young barnacle attaches itself to a hard surface.

Then it builds a permanent home, covering itself with several plates and a lid. Inside its laminated "fortress," it spends the rest of its life standing on its head and kicking food into its mouth with its feet.

We call the barnacle "it" because it is a combination of both male and female. Only one parent is needed both to lay and to fertilize the eggs from which the young ones hatch.

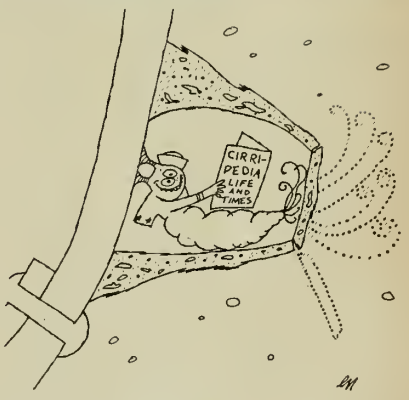
Ever since man first took to the sea in boats, this neuter-gendered arthropod has been a problem. If a ship could be kept in motion at a speed above two knots all the time, barnacle larvae could not swim fast enough to catch and attach themselves to the hull. A ship at anchor, however, is easy prey for an uncountable number of hameless larvae.

Barnacles can cover the entire underwater surface of a hull with their volcano like structures in a relatively short period of time. Then the hull will no longer slide through the water smoothly because the fouled surface sets up resistance. The speed of the ship is further decreased by the accumulated weight of these crustacea. Some heavily fouled ships have carried 200 tons of marine life clinging to their hulls.

In addition to slowing the speed of the vessel, adhesive barnacles can loosen paint and other protective coatings from the metal hull, causing it to be exposed to rust and other erosion.

Barnacles thrive in salt water, especially in tropical climates, but cannot live in fresh water. A captain who takes his ship into fresh water will kill the barnacles, but few of their homes will drop from the hull.

Nineteenth century shipbuilders found that copper surfaces were unpalatable to the



barnacle. Wooden ships of that era were often protected by copper plates on the hull surface. When copper plates were applied to steel ships, however, an electrolytic action between the dissimilar metals took place in salt water. This corrosive action caused the hull to eat itself away.

In search of an antifouling substance, inventors patented coatings composed of everything from garlic to cyanides. All were more or less unsuccessful. Even as late as the beginning of World War II, ships had to be drydocked every few months for scraping and repainting.

Since the Navy started using a plastic antifouling coating during the war, the barnacle has not been such a problem. Present Navy practice for protecting shipbottoms consists of the application of one coat of wash primer, three coats of anticorrosive and one coat of antifouling hot plastic. As an alternate to the hot plastic, three coats of cold plastic antifouling can be applied.

Ships can now stay at sea more than two years without suffering the consequences of fouled or corroded bottoms. The Navy customarily hauls its ships up for other repairs every two years, and at this time renews the plastic antifouling coating. Hitchhiking barnacles, therefore, have been forced to find homesites elsewhere.

Table Shows Advancement Opportunities in February Exams

MOST NAVYMEN who obtain a passing mark in the service-wide examinations for advancement in February will have an excellent opportunity for advancement in the majority of rates and ratings.

That's the conclusion to be drawn from the figures shown below. This information, compiled at the direction of the Chief of Naval Personnel, is based on available statistics, study of past performance and a considered estimate of all the variables which might affect advancement.

However, in studying the probabilities of advancement in your rating, you should bear in mind that these figures are tentative and may be changed as the needs of the service may require.

Note: In the table below you will note that the term "Nearly All" appears very often. In many of the rates so indicated, ALL who pass the examination will be advanced.

Remember, however, that the figures given are only estimates.

RATING	CANDIDATE FOR PAY GRADE E-7			CANDIDATE FOR PAY GRADE E-6			CANDIDATE FOR PAY GRADE E-5			CANDIDATE FOR PAY GRADE E-4			RATING
	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	
8M	2460	860	3% to 10%	3340	1400	3% to 10%	3750	1840	3% to 10%	10250	7690	3% to 10%	8M
QM	780	270	3% to 10%	510	210	50% to about 75%	990	480	Nearly all	2600	1950	Nearly all	QM
RD	380	130	Nearly all	390	160	Nearly all	1500	730	Nearly all	2150	1610	Nearly all	RD
SO	230	80	Nearly all	240	100	Nearly all	960	470	Nearly all	1200	900	Nearly all	SO
TM	890	310	3% to 10%	450	190	10% to 50%	430	210	Nearly all	700	520	Nearly all	TM
GM	1590	560	3% to 10%	1870	780	3% to 10%	2100	1030	Nearly all	3500	2630	Nearly all	GM
GS	60	20	Nearly all	10	5	Nearly all	40	20	Nearly all	70	50	Nearly all	GS
FT	510	180	Nearly all	470	200	Nearly all	1350	660	Nearly all	2150	1610	Nearly all	FT
MN	40	15	Nearly all	80	35	Nearly all	240	120	Nearly all	350	260	Nearly all	MN
ET	510	180	Nearly all	1280	540	Nearly all	1800	880	Nearly all	2150	1610	Nearly all	ET
IM	20	5	10% to 50%	30	15	50% to 75%	50	25	Nearly all	170	125	Nearly all	IM
OM	60	20	3% to 10%	30	15	50% to 75%	40	20	Nearly all	170	125	Nearly all	OM
TE	310	110	50% to 75%	400	170	Nearly all	1080	530	Nearly all	1550	1160	Nearly all	TE
RM	750	260	Nearly all	750	315	Nearly all	1750	825	Nearly all	3500	2625	Nearly all	RM
CT	330	115	50% to 75%	250	105	50% to 75%	500	245	Nearly all	1200	900	Nearly all	CT
YN	1200	420	10% to 50%	1420	595	10% to 50%	2700	1320	Nearly all	4350	3260	Nearly all	YN
PN	420	145	50% to 75%	400	160	50% to 75%	970	475	Nearly all	1900	1425	Nearly all	PN
MA	120	40	3% to 10%	160	65	3% to 10%	120	60	Nearly all	150	110	Nearly all	MA
5K	850	300	50% to 75%	830	350	Nearly all	1420	700	Nearly all	3450	2590	Nearly all	SK
DK	270	95	3% to 10%	210	90	3% to 10%	400	200	Nearly all	950	710	Nearly all	DK
CS	1870	650	3% to 10%	2660	1120	3% to10%	2250	1100	Nearly all	3500	2625	Nearly all	CS
SH	600	210	3% to 10%	910	390	3% to 10%	1800	880	Nearly all	2450	1840	Nearly all	SH
JO	30	10	10% to 50%	40	15	50% to 75%	130	60	Nearly all	250	185	Nearly all	JO
LI	70	25	3% to 10%	90	40	3% to 10%	220	105	Nearly all	350	265	Nearly all	LI
DM	20	5	Nearly all	30	15	Nearly all	120	60	Nearly all	350	260	Nearly all	DM
MU	120	40	50% to 75%	80	35	Nearly all	210	100	Nearly all	350	260	Nearly all	MU
MM	1350	475	10% to 50%	1070	450	Nearly all	2550	1250	Nearly all	3900	2925	Nearly all	MM
EN	2250	790	3% to 10%	1410	590	10% to 50%	2250	1100	Nearly all	3900	2925	Nearly all	EN
MR	150	50	10% to 50%	160	65	Nearly all	520	255	Nearly all	800	600	Nearly all	MR
8T	1350	470	10% to 50%	800	335	Nearly all	1800	880	Nearly all	3000	2250	Nearly all	8T
EM	900	315	50% to 75%	880	370	Nearly all	2100	1030	Nearly all	3000	2250	Nearly all	EM
IC	240	85	10% to 50%	200	85	Nearly all	790	385	Nearly all	1200	900	Nearly all	IC
ME	770	270	3% to 10%	530	220	3% to 10%	780	380	Nearly all	1300	975	Nearly all	ME
FP	340	120	3% to 10%	360	150	50% to 75%	790	385	Nearly all	1400	1050	Nearly all	FP
DC	640	225	3% to 10%	470	195	3% to 10%	690	340	Nearly all	1300	975	Nearly all	DC
PM	20	5	10% to 50%	20	10	Nearly all	20	10	Nearly all	170	125	Nearly all	PM
ML	30	10	3% to 10%	20	10	50% to 75%	20	10	Nearly all	170	125	Nearly all	ML
SV	10	5	Nearly all	20	10	Nearly all	100	50	Nearly all	170	125	Nearly all	SV
CE	30	10	Nearly all	50	20	Nearly all	190	90	Nearly all	450	340	Nearly all	CE
CD	100	35	Nearly all	210	90	Nearly all	600	295	Nearly all	950	710	Nearly all	CD
CM	90	30	10% to 50%	120	50	50% to 75%	270	130	Nearly all	500	375	Nearly all	CM
8U	100	35	Nearly all	120	50	Nearly all	450	220	Nearly all	700	525	Nearly all	BU
SW	70	25	50% to 75%	60	25	Nearly all	180	90	Nearly all	350	260	Nearly all	SW
UT	30	10	Nearly all	40	15	Nearly all	140	70	Nearly all	250	190	Nearly all	UT
AD	3900	1365	3% to 10%	2800	1175	3% to 10%	2040	1000	Nearly all	5200	3900	Nearly all	AD
AT	1350	475	50% to 75%	800	330	Nearly all	2020	990	Nearly all	2600	1950	Nearly all	AT
AO	700	245	3% to 10%	700	290	10% to 50%	920	450	Nearly all	1750	1310	Nearly all	AO
AQ	40	10	Nearly all	10	5	Nearly all	20	10	Nearly all	70	50	Nearly all	AQ
GF	50	20	Nearly all	20	10	Nearly all	10	5	Nearly all	80	60	Nearly all	GF
AC	280	100	50% to 75%	180	75	50% to 75%	280	135	Nearly all	600	450	Nearly all	AC
A8	230	80	50% to 75%	360	150	50% to 75%	840	410	Nearly all	1750	1310	Nearly all	A8
AE	420	150	Nearly all	360	150	Nearly all	870	425	Nearly all	1300	975	Nearly all	AE

RATING	CANDIDATE FOR PAY GRADE E-7			CANDIDATE FOR PAY GRADE E-6			CANDIDATE FOR PAY GRADE E-5			CANDIDATE FOR PAY GRADE E-4			RATING
	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	Take Exam	Will Pass	Percent Passing who will Advance	
AM	1500	525	3% to 10%	880	370	50% to 75%	1230	600	Nearly all	2150	1610	Nearly all	AM
PR	290	100	3% to 10%	80	35	3% to 10%	180	90	Nearly all	350	265	Nearly all	PR
AG	150	50	10% to 50%	150	60	Nearly all	420	200	Nearly all	800	600	Nearly all	AG
TD	150	50	10% to 50%	150	60	Nearly all	420	200	Nearly all	700	525	Nearly all	TD
AK	280	100	10% to 50%	360	150	50% to 75%	490	240	Nearly all	1400	1050	Nearly all	AK
PH	220	75	10% to 50%	230	100	50% to 75%	600	295	Nearly all	950	710	Nearly all	PH
HM	2400	840	3% to 10%	1960	825	50% to 75%	3300	1620	Nearly all	5200	3900	Nearly all	HM
DT	230	80	3% to 10%	250	105	50% to 75%	310	150	Nearly all	1150	860	Nearly all	DT
SD	1550	540	3% to 10%	1740	730	3% to 10%	2990	1460	3% to 10%	3380	2530	3% to 10%	SD

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carrried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 83—Announced approval by the President of the reports of selection boards which recommended Regular Navy and Naval Reserve officers for promotion for captain and commander in the Medical Corps, Dental Corps, Medical Service Corps, and Nurse Corps.

No. 84—Announced the convening of selection boards to consider lieutenants of the Medical and Dental Corps on active duty for temporary promotion to lieutenant commander.

No. 85—Stated that entitlement of food to shore messes will be based on number of men who actually take meals rather than on a muster roll, as has been the custom in the past.

No. 86—Announced convening of selection boards to recommend staff corps lieutenants (junior grade) for temporary promotion to lieutenant.

No. 87—Stated that enlisted personnel receiving a commuted ration, when assigned to duty requiring the purchase of one or more meals per day from other than a government mess, are entitled to a supplemental subsistence allowance.

No. 88—Clarified reports concerning single manager commodity assignment for subsistence for all military services and stated there would be no basic change in Navy's method of food purchases.

No. 89—Announced the convening of selection boards to consider lieutenants (junior grade) of Medical and Dental Corps on active duty for temporary promotion to lieutenant.

No. 90—Announced approval by the President of the report of a selection board which recommended officers of the Regular Marine Corps and Marine Corps Reserve to the grade of major.

Instructions

No. 1130.4C—Pertains to the enlistment or reenlistment in the Regular Navy or Naval Reserve personnel serving on active duty.

No. 1133.8—Authorizes the discharge of those individuals inducted into the Naval service who so desire for the purpose of immediate reenlistment in the Regular Navy, and provides for the retention on active duty of those inducted personnel who desire to remain on active duty beyond the period for which they were inducted, but who do not wish to reenlist in the Regular Navy.

No. 1120.12D—Establishes qualifications for the Regular Navy Augmentation Program for temporary officers and Naval Reserve Officers.

No. 1210.7—Announces the general policies and procedures to be followed in the transfer of officers from line-aviation to line.

No. 1520.6F—Lists selectees for the officer class of Submarine School and requests applications from Regular and Reserve line officers on active duty for class convening first week in July 1956.

No. 1533.29A — Establishes NROTC supply curriculum clearing house procedures for 1955-56.

No. 1910.12—Announced the continuation of program early separation of enlisted personnel commencing or resuming college education.

Notices

No. 1133 (10 Nov)—Announced that certain Naval Reserve personnel serving on active duty who incurred an additional service obligation under the provisions of the Universal Military Training and Service Act, as amended, would not be permitted to extend their contractual enlistments.

No. 1416 (18 Oct)—Set forth the bibliography in logistics and industrial relations of officers selected for promotion in fiscal 1956 from lieutenant commander to commander.

No. 1430 (3 Nov)—Promulgated information regarding the advancements resulting from the August 1955 examinations and the estimated opportunities for advancement which will result from Feb 1956 exams.

LA Has High Quota Of Enlisted Advancements

Ninety-two enlisted Navymen on board USS *Los Angeles* (CA 135) have been advanced to the next higher pay grades, after completing the requirements for advancement. Two others successfully passed exam for advancement but were not rated because of present quota limitations.

The 92 men that were advanced comprise almost a tenth of the 950 enlisted men aboard ship.

Fifty-three of the men were advanced to third class petty officer, 31 to second class, seven to first class and one to chief.

Thinking of Changing Your Rating? Check These Points

If you are a petty officer and are planning to request a change in rating, here are the latest instructions with which you must comply before you can submit your request.

In the first place, the decision to request a change in rating requires very serious consideration. The Navy has trained you for a specific type of job and that is the job for which you are believed to be best fitted by aptitude and experience. Some special justification is necessary before the Bureau will consider making a change.

These special considerations are outlined in BuPers Inst. 1440.5A. This instruction does not affect the authority of the commanding officer to make changes in rating for general apprentices under his command as authorized in Art. C-7213 of *BuPers Manual.*

The most important factor in determining what action will be taken by the Bureau on requests for changes in rates or ratings is the current shortage or excess in certain ratings throughout the Navy. Some of the factors used in determining action on your request for a change are:

- Needs of the service as a whole regardless of the excess or shortage of certain ratings in local commands.
- The amount of formal training and actual experience in your present rate or rating as compared to the requirements of the rate or rating requested.
- The time and money the Navy has expended to train you for your present rate compared to your performance and usefulness to the naval service in the new rating requested. Usually, only special or unusual cases will be considered where personnel are graduates of Class "A" or "B" schools and where this training cannot be used in the new rate or rating.
- The lack of normal training and experience in the lower pay grades of the requested rating and its effect upon your ability to instruct your subordinates properly. This is particularly important in the higher pay grades.
- Commanding officer's recommendation and comments regarding your relative aptitude and qualification for rates or ratings involved.
- Training and experience gained in civil life.
- The fact that an allowance for the requested rate or rating does not exist in the command is a factor against changes. Such changes require otherwise unnecessary transfers and affect permanency of personnel.

Changes between certain rates are desirable. If you are in a crowded rating, you may have a better opportunity for advancement and at the same time benefit the service if you change to an "open" rate. The list of "open" rates is contained in Enclosure One of BuPers Inst. 1130.4B.

This list is determined by a study of the number of personnel on board in each rate in relation to the number required in that rate, on a service-wide basis. This list is revised periodically as the number of personnel on board changes in relation to requirements. The list of "open" rates provides the best available information, but it only reflects the current situation.

If you have been recommended and nominated to participate in the service-wide competitive examination for advancement in the rating you presently hold, you will not be recommended for a change in rating until the final results of the examination for advancement are known.

On the other hand, personnel who have been recommended for change in rating will not be recommended or nominated for advancement, or participation in service-wide competitive exams, in either rating, until after the Bureau action on the recommendation has been received by their commanding officer.

Before you can make a request for change in rating you must be fully qualified in the duties of the requested rating. This means that you must first satisfactorily complete the following requirements for the rating requested:

- Training course.
- Practical factors in the rating, and for the rate, as required in the *Manual of Qualifications for Advancement in Rating* (NavPers 18068 Revised).
- Applicable school when required for advancement to requested rate.
- Operation tests when required for the rate and rating.

You will also be required to take a written examination prepared at your duty station. The examination will be based on the subjects for the particular rate requested as listed in the *Manual of Qualifications for Advancement in Rating.* The examination is graded locally by an examining board appointed by the commanding officer.

The instructions in this directive are also applicable to enlisted women. The rates and ratings to which Waves may be permitted to change are limited to the following: Rates—SA, SN, AA, AN, HA, HN, DA, DN; Ratings—ET, IM, OM, TE, RM, CT, YN, PN, MA, SK, DK, CS, SH, JO, LI, AC, DM, PH, AT, AK, PR, AG, TD, HM, and DT.

Naval Reservists on active duty with Regular Navy may be examined and recommended for change to Emergency Service Ratings only.

Doing Top Selling Job, Sailor Sells Self, Ships Over

When you really believe in the product you are selling it sometimes happens that you turn out to be your own customer, at least that's what happened to Jimmy Rogers, GM3, USNR.

Rogers, who enlisted in the Reserve after a tour of duty in the Regular Navy, recently volunteered for active duty in connection with the Naval Air Reserve recruiting program. For three weeks he worked out of the Memphis Naval Air Reserve Training Unit and, according to his boss, was instrumental in recruiting a large percentage of the 50 veterans he talked to about entering the Naval Air Reserve Program.

The more he recruited the more enthusiastic he got until one day he decided to follow his own advice and shipped himself for a two-year tour of active duty.

There is no doubt that Rogers was sold on his product and he must be a high powered recruiter to recruit himself. The only trouble is that now Memphis is out one recruiter while the Pacific Fleet is one gunner's mate richer.

Promotions for Regular and Reserve Officers in Line And Staff Corps Announced

Selection boards have announced the results of their deliberations concerning promotion of several categories of Regular Navy and Naval Reserve line and staff officers on active duty.

The largest consisted of 1085 USN and USNR line lieutenant commanders on active duty recommended for temporary promotion to the grade of commander. Approximately 210 of the selected officers will receive appointments with dates of rank from 1 July upon completion of required qualifications. The remainder of those named will be advanced periodically as vacancies occur. It is anticipated that all will be promoted by 1 Jul 1956.

Promotions also included 415 USN and USNR staff corps commanders and lieutenant commanders for advancement to captain and commander, respectively.

Selections, 177 to captain and 240 to commander, were made in the Supply Corps, Civil Engineer and Chaplain Corps. Two Waves, one in the Medical Service Corps and one in the Supply Corps, were selected to the grade of commander. Of the 177 officers selected for captain's rank, 81 are serving in the Supply Corps, 80 in the Civil Engineer Corps and 16 in the Chaplain Corps.

More than half of the men—150—picked for the rank of commander are Supply Corps officers; 34 are engineers and 54 are Chaplains.

Approximately half of those named to captain will be appointed upon completion of the required qualifications, with a date of rank of 1 Jul 1955. The balance will be advanced as vacancies occur for their line running mates during the remainder of the fiscal year. Promotions to commander will also be made as vacancies occur.

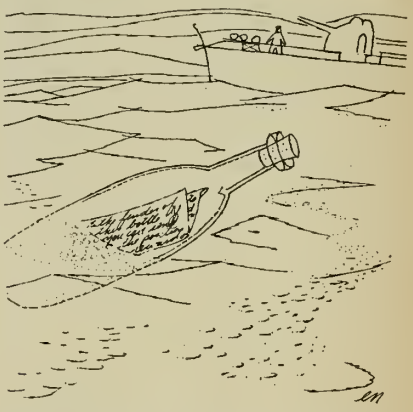
The names of 1115 officers of the Medical and Dental Corps in the grades of commander and lieutenant commander who have been selected for temporary promotion to the next higher grade have also been announced.

Those selected include: for temporary promotion to captain in the Medical Corps, 282; in the Dental Corps, 303; to commander, Medical Corps, 381, Dental Corps, 149.

Appointments also included 17 chief petty officers to the temporary grade of warrant officer, W-1. Those appointed will have various dates of rank and include the following categories: to Aviation Operations Technician, one; to Boatswain, four; to Mine Warfare Technician, one; to Machinist, four; to Aviation Electronics Technician, two; to Electronics Technician, three; to Ship Repair Technician, and to Ship's Clerk, one.

HOW DID IT START

Bottles That Go Places



Since the early days of history the shifting, drifting waters of the seas have been delivering messages in bottles and boxes from adventure-minded sailors, lonesome castaways hoping for rescue, and from curious people who just want to know where the ocean goes."

One of the first sailors to take advantage of the ocean mailing service was Christopher Columbus, who sent a wooden chest to the King and Queen of Spain containing a complete report of his discoveries in the New World. The chest was set adrift during a severe storm near the Azores when Columbus, fearing he would drown without making his discoveries known, used the sea as a last resort to communicate with the Spanish rulers who had financed his trip. Fortunately, Columbus returned safely to Spain to report on his expedition in person and the good Queen Isabella didn't have to wait for the mail"—it was not discovered until 359 years later when the captain of the Yankee brig *Chieftain* picked it up off Morocco.

In more recent times the bottles and boxes tossed into the sea have been used to study the ocean's currents as well as deliver messages. At first this method wasn't too reliable because the bottles or boxes could be carried from one current to another by the wind and their course was a combination of wind and wave currents. However, more than a century ago, the "drift bottle" was introduced to overcome the uncertainties of wind versus ocean currents.

Drift bottles are carefully sealed bottles that are weighted down with sand so that they are nearly all under water with only the top sticking out to the wind. To help oceanographers in their study of the currents the bottles contain little cards, with the number of the bottle on it (to establish the place and time it was put in the water) and a request for the finder to fill in the information as to where and when the bottle was found and then return the card to a central office.

Sometimes the drift bottles are equipped with drift anchors—usually a cross-shaped piece of iron suspended below the bottle that adds extra weight to the bottle to keep it out of the wind.

In shallow waters like the North Sea other experiments with two bottles have been successful in charting the currents. One of the two bottles contains a weak acid that after a given length of time eats away a metal stopper that permits the sea water to fill the bottle. When this happens the bottle sinks to the bottom pulling the other bottle down with it where it is held in place by a piece of sheet metal that acts as an anchor. The bottles are easily recovered—especially by fishermen using trawls.

The Navy's Hydrographic Office and the U. S. Fish and Wildlife Service also play a serious role in the study of ocean currents. Hydro constantly checks the lanes used by shipping to make certain that maximum use is made of the helpful, fast moving currents. Captains of ocean-going vessels help out by regularly casting off bottles containing papers with instructions printed in eight languages asking the finders to return the papers with information on where and when the bottles were recovered. One of the Hydrographic bottles holds the "record" for bottle travel having covered 12,250 miles.

You can assist in this study of ocean currents by returning any bottled message you may find—if you accidentally open someone else's mail you can always throw it back. Then too you may find more than you bargained for. In 1949 an employee of a California restaurant found a bottle that had been washed ashore near Palo Alto, Calif. The note inside had been written in 1937 and contained a will signed by Daisy Alexander, leaving her entire estate to her lawyer and to the person who found the bottle. It turned out that Daisy was the daughter of Isaac Singer, the sewing machine millionaire, and she had died in London leaving an estate of $12,000,000. It is believed that sometime before her death she threw the bottle into the Thames River—and it turned up 12 years later in California!

Revised Instructions List More State Bonuses

The state of Indiana has revised its instructions concerning its bonus for Korean veterans and has issued application forms. In addition, five states — Massachusetts, Michigan, New Hampshire, New York and Vermont—other than the three listed in the December 1955 issue of ALL HANDS (Pennsylvania, Washington and West Virginia) are still accepting applications for bonus payments from World War II veterans. That is, eight states in all are still paying bonuses for World War II service, rather than three states, as previously reported. Pertinent instructions on the subject have been revised.

Indiana

Here's the latest information concerning the payment of a bonus for *Korean veterans* by Indiana:

Amount: $15.00 for each month or fraction of 15 days or more. Maximum, $550. Flat amount of $600 for veteran with 10 per cent or more service-connected disability.

Bonus payments will be made from surplus of World War II bonus funds. Priority in payment is given first to claims of next of kin of deceased eligible veterans; then to claims of eligible disabled veterans; finally, if funds permit, to claims of eligible veterans who served in the Korean War theater. No bonus is paid for service outside the Korean theater except for death or disability.

Service: Active duty in the Korean theater for any period between 27 Jun 1950 and 27 Jul 1953, both dates inclusive. Must have received or be entitled to receive the Korean Campaign Service Bar. Separation or discharge from the armed forces under honorable conditions. If still in military service, you may apply.

Death: Next of kin of deceased eligible veteran who served on active duty at any time between 27 Jun 1950 and 1 Jan 1955. Service in Korean theater is not required. Death must be result of active duty if before discharge, or as a result of service connected disability after discharge, and must not be due to own misconduct.

Dependents eligible: Unremarried widow or widower, children, mother, father, and persons standing in loco parentis in this order of priority.

Residence: One year in state immediately before induction.

Deadline: 30 Jun 1956.

For applications (or inquiries): Auditor of State of Indiana, Bonus Division, 431 N. Meridian St., Indianapolis 4, Ind.

World War II State Bonuses

Here's further information concerning World War II bonus (for info on Pennsylvania, Washington and West Virginia, see ALL HANDS, December *1955, p-52*).

Massachusetts

Amount: $100 domestic service of less than six-months; $200 domestic service of more than six months; $300 overseas service.

Service: Between 16 Sep 1940 and 31 Dec 1946, both dates inclusive. Discharge or release other than dishonorable, or in active service.

Residence: Six months immediately before entering service.

Deadline: None.

Next of kin: Survivors of persons who died in service before 31 Dec 1946 may receive $300. Otherwise, amount veteran would receive if alive.

For applications: Commandant (DCRO), First Naval District, 495 Summer St., Boston 10, Mass.

Address inquiries to: Veterans Bonus Commission, 15 Ashburton Place, Boston 8, Mass.

Michigan

Amount: $10 per month of domestic service; $15 per month of foreign service; $500 maximum.

Service: More than 60 days between 16 Sep 1940 and 30 Jun 1946, both dates inclusive. Honorable discharge or release, or in honorable active service.

Residence: Six months immediately before entering service.

Deadline: 1 Jun 1956 (Only veterans still in service or in military veterans' or state hospitals are now eligible.)

For applications: Commandant (DCRO), Ninth Naval District, Bldg 1, Great Lakes, Ill.

Address inquiries to: Adjutant General's Office, State of Michigan, Military Pay Division (Bonus Section), P. O. Box 1401, Lansing 4, Mich.

New Hampshire

Amount: $10 per month active service; $100 maximum.

Service: More than 90 days' service between 7 Dec 1941 and 31 Dec 1946, both dates inclusive. Discharge or release under conditions other than dishonorable.

Residence: Bona fide resident at time of entry into service.

Deadline: None.

Next of kin: Survivors of veteran who dies in active service or after that time from service-connected causes may receive $100. Otherwise, amount veteran would receive.

For applications: Commandant (DCRO), First Naval District, 495 Summer St., Boston 10, Mass.

Address inquiries to: State Adjutant General's Office, State Military Reservation, Concord, N. H.

New York

Amount: $50 for 60 days or less of domestic service, $150 for more than 60 days of domestic service; $250 for any foreign service.

Service: Active duty between 7 Dec 1941 and 2 Sep 1945, both dates inclusive. Discharge under honorable conditions or still in service.

Residence: Six months immediately before service. Residence at time of application requirement removed in November 1949 election.

Deadline: None.

Next of kin: If death occurred in service, next of kin may receive $250. Otherwise, amount veteran would receive if alive.

For applications: Commandant (DCRO), Third Naval District, 90 Church St., New York 7, N. Y.

Address inquiries to: Veterans' Bonus Bureau, Dept of Taxation and Finance, 1875 North Broadway, Albany 4, N. Y.

Vermont

Amount: $10 per month (enlisted personnel only); $120 maximum.

Service: Active service between 11 Sep 1941 and 30 Jun 1947. Honorable separation.

Residence: Residence at time of entry and for one year immediately before.

Deadline: None.

Next of kin: Survivors of persons dying in service may receive $120. Otherwise, amount veteran would receive if alive.

For applications: Commandant (DCRO), First Naval District, 495 Summer St., Boston 10, Mass.

Address inquiries to: Office of Adjutant General, State Office Bldg., Montpelier, Vt.

New Films Available through Central Recreation Fund For Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are designated by (C). Distribution of the following films began in November.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The plan and funds are under the administration of the Chief of Naval Personnel.

My Sister Eileen (398) (C): Musical; Janet Leigh, Jack Lemmon.

Strange Lady In Town (399) (C): Western; Greer Garson, Dana Andrews, Cameron Mitchell.

The Far Horizons (400) (C): Adventure Drama; Fred MacMurray, Donna Reed, Charlton Heston.

Hell's Island (401) (C): Murder Drama; John Payne, Mary Murphy.

Pearl Of The South Pacific (402) (C): Adventure Drama; Virginia Mayo, Dennis Morgan.

The Glass Slipper (403) (C): Cinderella Fantasy; Leslie Caron, Michael Wilding, Keenan Wynn.

The Marauders (404) (C): Western; Dan Duryea, Jeff Richards.

The Night Of The Hunter (405): Melodrama; Robert Mitchum, Shelley Winters, Lillian Gish.

Road To Denver (406) (C): Western; John Payne, Mona Freeman, Lee J. Cobb.

Special Delivery (407): Drama; Joseph Cotten and Eva Bartok.

The Phenix City Story (408): Crime Melodrama; Richard Kiley, John McIntire, Kathryn Grant.

The Sea Chase (409) (C): Sea Adventure; Lana Turner, John Wayne.

Footsteps In The Fog (410) (C): Horror Drama; Stewart Granger, Jean Simmons, Bill Travers.

Mister Roberts (411) (C): Navy Comedy; Henry Fonda, James Cagney, William Powell, Jack Lemmon.

All That Heaven Allows (412) (C): Romantic Drama; Jane Wyman, Rock Hudson.

The Twinkle In God's Eye (413): Drama; Mickey Rooney.

To Hell And Back (414) (C): War Drama; Audie Murphy, Marshall Thompson.

The Last Command (415) (C): Western Drama; Sterling Hayden, Anna Marie Alberghetti, Richard Carlson.

Night Freight (416): Drama; Forrest Tucker, Barbara Britton.

The Seven Little Foys (417) (C): Comedy Drama; Bob Hope.

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH in on page 9

1. (b) large cruiser
2. (a) uss Guam (CB 2).
3. (c) quartermaster
4. (a) machinery repairman
5. (b) the Navy's first multi-jet seaplane
6. (c) 600 mph.

Atomic Medicine Is Subject Of New Correspondence Course

The new Medical Department correspondence course, *Atomic Medicine* (NavPers 10701-A) is now available to eligible Regular and Reserve officers and enlisted personnel of the Medical Department.

The new course contains eight assignments, covering the principles and applications of atomic medicine, and is evaluated at 24 Naval Reserve points credit. *Atomic Medicine* supersedes *Radiological Defense and Atomic Medicine* (NavPers 10701), but personnel who completed the latter course will receive additional credit for the new.

Correspondence Course Ready for Boatswain's Mates, Strikers

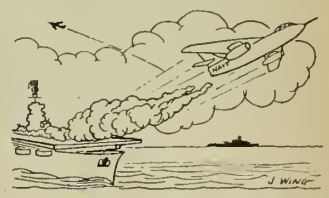
A new Enlisted Correspondence Course is now available to all enlisted personnel.

Boatswain's Mate 3 (NavPers 91242-1) is applicable to the ratings of BM, BMG, BMB, BMS, BMK and BMR, and is evaluated at 21 points.

All applications should be sent to the U. S. Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, N. Y., via your commanding officer.

HERE'S YOUR NAVY

The 70,000-pound A3D *Skywarrior* is scheduled to be delivered to two brand new Heavy Attack Squadrons early this year. In joining the Fleet the A3D will mark a new era in naval aviation as the heaviest and most powerful attack bomber that the world has ever seen. It is capable of

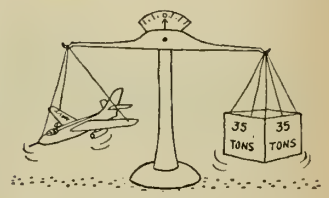


carrying an A-bomb, and has a range sufficient to span the U. S. and return.

Able to fly from either carriers or advanced land bases the A3D will give the Navy a plane that can strike any spot on the face of the earth. It carries a crew of three: pilot, co-pilot and navigator; and can carry

the largest type of munitions utilized by the Navy's air arm.

Equipped with two dual compression J-57 turbo-jet engines, which produce u pto 10,000 pounds thrust, the A3D has a folding vertical tail and folding outer wing panels in addition to normal catapulting and arrested landing gear — all specifically designed for carrier qualifications. Its performance falls into the 600-700



mile per hour class and it can fly at altitudes up to 40,000 feet.

Extraordinary take-offs can be accomplished with the A3D at full gross weight through the use of 12 jet-assisted take-off bottles mounted on both sides of the fuselage of the rear fuel tank. Using the JATO and engines, the pilot of the plane can make a normal carrier take-off without the use of a catapult, a real accomplishment for such a heavy plane.

SERVICESCOPE

Brief news items about other branches of the armed services.

★ ★ ★

DON'T BE SURPRISED if many of those American merchant ships you see around the world have man-of-war smartness and appearance. It is very likely that their masters, and not less than 50 per cent of other licensed officers on board are members of the Fleet Reserve or Naval Reserve.

More than 200 of the U. S. merchant vessels now plying foreign seas and visiting world ports have the Naval Reserve banner flying from their foretrucks. These ships have been designated by the Secretary of the Navy as suitable for service as naval auxiliaries in time of war, provided they meet the 50 per cent requirement in Reserve officer complement.

Because trained crews manning auxiliary passenger liners and cargo ships are vital to logistic mobilization plans, the Navy still assists in training and gives Reserve commissions to graduates of state and federal Merchant Marine academies. Reserve MSTS units located near commercial seaports are authorized to perform ACDUTRA on board certain merchant vessels under MSTS.

★ ★ ★

THE XF-84H EXPERIMENTAL turboprop fighter plane has made its first flight successfully at the Edwards Air Force Base, Calif.

The new plane remained aloft for 35 minutes on its maiden flight, most of which was made at an altitude of 20,000 feet.

The XF-84H is said to be the fastest single-engine propeller-driven plane ever built. It can be expected to attain even greater speeds when fitted with an after burner for which it is equipped, and is believed to be the first turboprop plane designed for after-burner augmentation of propeller power.

This new experimental fighter combines the advantages of propeller-driven planes with the speed of lightweight modern jet engines. The power of the turbine engine is converted through a gear box and shafting into propeller power, providing high speed and performance without using fuel as rapidly as today's jets.

Because of its speed, long range, and ability to carry extremely heavy armament loads and still take off from short runways, the plane meets requirements for a USAF low-level fighter-bomber or Navy carrier-based dive-bomber.

NIKES provide defense against invaders in demonstration by 71st Antiaircraft Artillery Missile Bn. at Lorton, Va.

FLIES LIKE REAL—TF-102A is newly developed trainer for Force F-102A interceptor. Wider nose is for dual controls.

A single-seater fighter, the XF-84H has wings swept back at a 40-degree angle with air intake ducts in the wing roots.

An automatic propeller governor maintains a constant engine RPM and speed changes in flight are controlled by automatic pitch change of the propeller blades. Propeller pitch can also be reversed on the ground to brake the landing run, making it adaptable to small airfields.

★ ★ ★

AN ELECTRONIC DEVICE designed to tighten America's air defense has been developed for the Ground Observer Corps by the Air Research and Development Command.

The device is a lightweight (about 20 ounces), portable detector designed to add electronic eyes to the GOC during periods of darkness or poor visibility .

Mounted on a hat, the receiver operates on the basis that any enemy aircraft penetrating our defenses would be forced to use non-optical methods of navigation and bombing under low visibility conditions. The radar from this aircraft would radiate large bursts of high frequency energy which are easily detected by Ground Observer Corps personnel equipped with the detector.

When an aircraft operating under these conditions nears the site of the observation post the receiver automatically picks up the signal. The observer immediately telephones the "enemy's" position to the appropriate filter center, for further action.

★ ★ ★

TWO FIELD ARTILLERY UNITS equipped with two of the Army's most modern weapons, the *Honest John* rocket and the 280mm atomic cannon, are being assigned to the Far East.

Assignment of the two units to the Far East Command is a "part of established U.S. policy to make available to its forces overseas the most modern developments in military weapons."

The *Honest John* is a long-range, 762mm artillery rocket designed to provide fire support for ground troops. It can employ conventional or atomic war heads.

The giant atomic cannon has a relatively high degree of mobility and long range. It is considered highly accurate with either conventional high explosive or atomic ammunition.

A TYPEWRITER-LIKE device designed to utilize more than 50 foreign language type fonts is under development by the Army.

Using this device, non-linguistic U. S. Army personnel will be able to prepare messages in totally unfamiliar foreign tongues. The machine will be used by mobile psychological warfare printing units.

Research on this multi-language typewriter was undertaken to establish a means of communicating with populations in the major political and geographic areas of the world. The basic problem was to develop a composing machine simple enough to be operated by a non-linguistic soldier and still retain a flexibility which would permit writing the major alphabetical languages. In other words, a single machine with interchangeable type fonts.

Through these interchangeable type fonts the Army's problem with languages in the Latin alphabet was simple. The problem was different with Hebrew, Arabic, the Indo-Chinese languages, or a language such as Burmese, with over 700 characters, in comparison to 26 letters in the English alphabet.

Now, as a result of exhaustive research in languages, hundreds of engineering changes and countless experiments, the Army has a gadget which writes in over 50 languages, including a reverse carriage model which types from right to left, needed for writing Hebrew, Arabic, Persian, Urdu, Malayan, Jowi, and Pushtu. Many of these languages are spoken by relatively small linguistic groups.

The new machine is simple to operate. The message is written by a linguist in the language desired. The linguist then substitutes appropriate numbers for the characters, with diagonals, circles and squares to indicate punctuation. With the proper font in the machine the operator merely strikes the keys according to the numerical sequence of the message. Completed, the typing resembles commercial printing. This is photographed, an offset plate is made, and printing begins.

★ ★ ★

AIR FORCE PLANS to accelerate initial production of two advanced jet fighters, the F-101 all-weather interceptor and the F-104 day fighter, have been completed and approved.

Emphasis has been shifted from the escort version of the F-101 to an all-weather interceptor version of this aircraft. This rescheduling will give the Air Force the more urgently required model sooner.

As a result of recent technical advances, a new model of the F-104 will be brought into production sooner than was originally planned. Also, a higher monthly rate of production for this aircraft has been planned.

CG ICEBREAKER, *USCGC Bittersweet* (WAGL 389), helps *USS San Bernardino County* (LST 1110) supply Dewline.

DAM MODELS, like this one of Niagara Falls, are made by Army Engineers at Vicksburg, Miss., station for study.

★ ★ ★

THE WASP WAIST is not only news in the field of fashion but also in aeronautical circles.

By adoption of the wasp waist design, Air Force engineers make aircraft such that the YF-102 and the F-102A all-weather jet interceptors travel still faster and slip more smoothly past the speed of sound.

By pinching in the fuselage where the wings are attached, the cross section area of the fuselage and wing together becomes the same as it would be for the streamlined fuselage only. This gives the least drag in the transonic range. The F-102A, now in production, is the Air Force's first supersonic all-weather interceptor. Packed with the newest electronic gear, the plane is designed to intercept enemy bombers at stratospheric altitudes, at any time of day or night.

★ ★ ★

TESTING of two all-metal helicopter rotor blades is now under way by the Air Force.

The blades, constructed basically of steel and aluminum, are being studied as a possible replacement for combination wood, metal, and fabric rotors used on H-13 and H-23 Army and Air Force helicopters.

The metal blades are being studied to determine if they can be made more economically. It is expected they will be stronger, lighter in weight, and completely interchangeable. Because of material limitations inherent in the use of wood, wooden blades come only in matched sets. However, metal blades are uniform and can be replaced individually rather than in sets.

Other advantages expected from the use of all metal blades include reduction in costs of production and maintenance. It is believed replacement costs would be greatly reduced since metal blades are not susceptible to weather deterioration, such as moisture absorption, wood checking and rot, and fabric blistering, which reduce the life of conventional blades.

BOOKS

PROFESSIONAL EMPHASIS IN THIS MONTH'S SELECTIONS

WHO IS JANE? If you've been in the Navy any time at all, you've heard of Jane's *Fighting Ships* and Janes *All The World's Aircraft*. But who (or what) is Jane?

Jane's Fighting Ships—1955-56 is one of the books selected by the Bureau of Naval Personnel library staff this month for your interest and pleasure. Although distribution of Jane's is limited to the larger libraries and to those activities which require the book in their professional work, you should still know what is meant when reference is made to Jane's.

Jane's is a publishing company which specializes in compiling—and publishing — information concerning the navies and aircraft of the world. For a Navyman who is interested in the basic tools with which he works, a careful study of Jane's is essential.

It is a reference work which, in the 57th edition, runs to some 500 pages and describes the fighting ships of 59 nations, ranging from Australia to Yugoslavia. It tells of the navy of Ceylon, with its total of eight coastal craft and 700-plus personnel as well as a detailed description of the major navies of the world.

In this edition, the amount of new material is well above normal, mainly because of the partial completion of rearmament programs begun a few years ago. More than 450 new illustrations—some 300 photographs and 150 line drawings—have been included, some of them of new warships, some replacing older illustrations. The total number of illustrations is nearly 2700.

This edition marks the completion of a project begun five years ago, the conversion of all silhouette drawings to a uniform scale so that relative sizes can be seen at a glance.

It also shows the gradual trend toward the navy of the future, with new weapons such as guided missiles, nuclear explosives, quick firing guns, nuclear power for submarines and other ships, a surprising number of wooden ships to help defeat the menace of the magnetic mine, as well as changes in the size of ships and their nomenclature.

The expansion program of all the navies of the world is given in detail. Photographs and specifications of USS *Forrestal* (CVA 59) are given, as well as USS *Nautilus* (SSN 571) and other innovations of the U. S. Navy and other countries. New information about Russian ships is given in the 33 pages devoted to the Soviet navy.

As usual, the data includes naval flags, strength of fleets, naval appropriations, personnel, silhouettes, class lists, photographs and line drawings and complete specifications.

All this makes Jane's the standard reference book of its field.

Also in the line of professional development are a number of interesting titles on travels and customs in countries in which you may find yourself serving on active duty. It goes without saying that the better you understand the people of other lands, the better you will like and appreciate them—and vice versa.

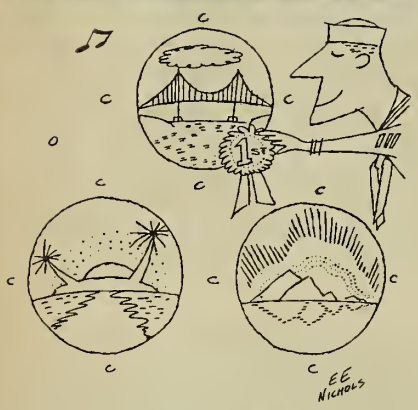
If you foresee duty in the Pacific area, you'll be interested in such titles as: ***Bare Feet in the Palace***, by Agnes Newton Keith; ***Japan's Modern Century***, by Hugh Barton; ***Korea Tomorrow***, by Kyung Cho Chung; ***Japanese Etiquette***, compiled by the World Fellowship Committee of the Tokyo YWCA; ***Japanese Are Like That***, by Ichoro Kawashi; and ***Hawaii and Its People***, by A. G. Day.

Bare Feet tells, in personal terms, of the democracy which has come to full stature in the Philippines with the election of President Magsaysay. *Modern Century* tells the complex story of Japan's transformation from a semi-feudal, agrarian society to the industrial world power it is today. Good, solid history. *Korea Tomorrow* is a comprehensive study of Korea in which the author gives a detailed description of the history and geography of the country, its social organization and cultural patterns, its economy and its politics. *Etiquette* is designed to aid the Westerner in his contacts with the Japanese people, and the Kawashi volume attempts to explain them. *Hawaii* is a one-volume history and romance.

There are also a series of guide books to European countries. ***Guide to Europe and the Mediterranean***, by Richard Joseph is an excellent discussion of your trip to Europe, from making arrangements and how to get there to a history and description of places of interest, where to stay and eat and answers to all the problems which normally arise. The "World in Color Series," edited by Dore Ogrizek and J. G. Rufenacht, covers most of the European countries you are likely to visit—Western Germany, Austria, Italy, Switzerland, Spain, Greece and North Africa. The volumes are handsomely decorated, have an easy, casual style of presentation, and are crammed with information.

Tired of non-fiction? Then relax with ***The Corsair***, by Madeline F. Kent, which tells the story of Jean Lafitte, the "pirate" of the Gulf of Mexico. Always a controversial and glamorous figure, Lafitte is depicted here as a thoroughly sympathetic character, a man of his time, forced by circumstances into the roles he played. He considered himself a corsair (and always resented the term "pirate"), a gentleman and patriot. He was devoted to the cause of France until he adopted that of his new country, the United States. An idealist, his story from its stormy youth to his disillusioned advancing years, makes superb reading.

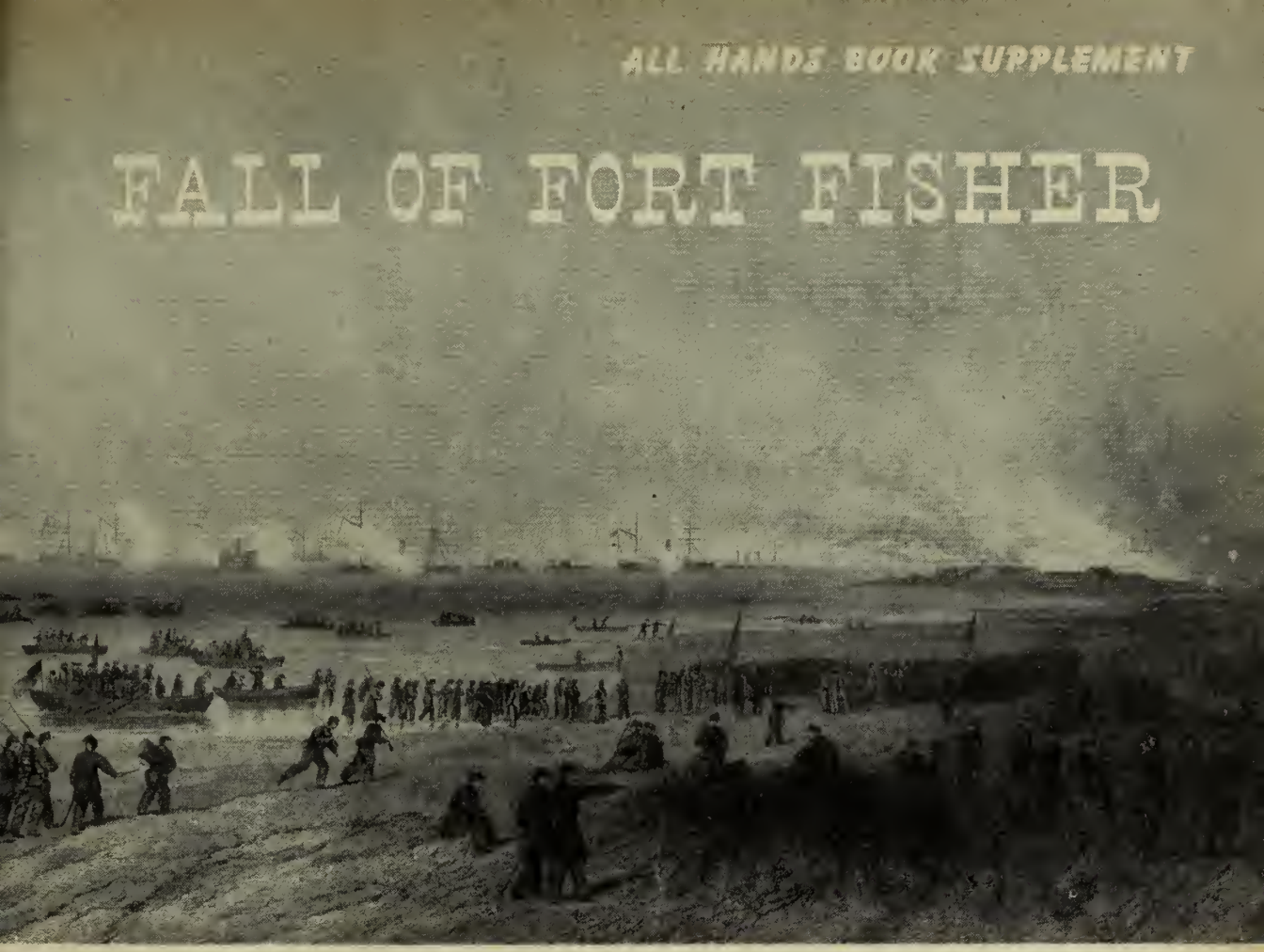
SONGS OF THE SEA



From the Northern Lights to the Golden Gate

The sight of a tropical sunset
With its brilliant red and gold,
And the shimmering glow
Of the Northern Lights
Are wondrous sights to behold.
But the most beautiful scene you'll encounter,
And one that is well worth the wait,
Is the view from the deck of a homecoming ship
When you look at the Golden Gate.

FALL OF FORT FISHER



The closing phases of the Civil War saw the Army, Navy and Marine Corps combine forces to reduce, in a direct frontal attack, one of the strongholds of the Confederacy—Fort Fisher. Here's the story of the Navy's part in this enterprise, as told by those who participated, from commander of the task force to ensign.

By the end of 1864 *the blockade maintained by the Union Navy had become a vital factor in the economic strangulation of the South. On the Atlantic coast, only one seaport, Wilmington, N. C., remained open to the Confederates. It was obvious that if Wilmington were to be closed, the final link connecting the South with its sources of supply in Europe would be broken.*

However, Wilmington was guarded by formidable Fort Fisher, which was located on a narrow tongue of land at the entrance to Cape Fear River. If this fort could be taken, further progress up the river to Wilmington would be relatively easy. In any event, blockade running (see July 1955 *issue of* ALL HANDS) *would come to a complete stop.*

Fort Fisher presented formidable obstacles to the Union forces. It had two sides; one more than three-fourths of a mile long faced the sea, and from its northern end of the other extended inshore at right angles for nearly a quarter of a mile across the neck of land to the river. The fort itself consisted of a shelter of massive and scientifically laid-out earthworks, with good traverses and bombproof chambers. Besides numerous smaller pieces, 44 *heavy guns were mounted in barbettes, though the ammunition for them was relatively short. In front of the northeastern or land face, a high palisade of logs had been constructed, and beyond this were numerous underground torpedoes (or land mines) for defense against an assault by land.*

(The first joint Army-Navy attack, initiated in December 1864, *was repulsed.)*

The second attack against Fort Fisher was launched on Jan 13, 1865, *when eight thousand troops were landed on the beach to the northward and the Fleet then proceeded to bombard the works. On the following day, while the Army consolidated its position and prepared to advance, another purely naval attack was made, with special attention being given to dismounting the hostile guns on the land face which would be brought to bear against the Federal Army. The Confederate fire was silenced and some of their guns dismounted in a general bombardment lasting nearly all day, and continued by a few ships into the night.*

For the final attack it was arranged that 1600 *bluejackets and* 400 *Marines should be landed from the ships to "board" the sea face while the soldiers assaulted on the land side of the fort. The Fleet moved into position and began a bombardment after* 0900. *At about noon the land-*

From *Report of the Secretary of the Navy*, Appendix, Government Printing Office, December, 1865.

FLEET OF FORT FISHER expedition under command of RADM David D. Porter prepares to leave Hampton Roads

ing detachments from 35 ships were sent ashore to the north of the fort and organized into four divisions.

Most of the landing party looked upon the enterprise as a lark, little suspecting that they were about to lose nearly one-fifth of their number.

As the naval shore party's attack took place on the sea face, the Union troops gained the highest parapets on their front and opened fire on the Confederates who were engaged against the bluejackets.

At this crucial stage, RADM Porter directed New Ironsides *and the monitors to fire on the traverses occupied by the defenders. Fifteen of these heavy bombproofs were thus cleared in advance of the Union troops who occupied them successively. The fighting lasted until* 2200, *when the Confederate garrison surrendered.*

Below are the reports of RADM David D. Porter and commanding officers of various vessels and detachments, paraphrased in part for easier reading.

REPORT *of RADM David D. Porter (January* 1865)

Sir: I beg to leave to submit a detailed report of the operations against Fort Fisher, having received all or nearly all the information required to make out a complete report.

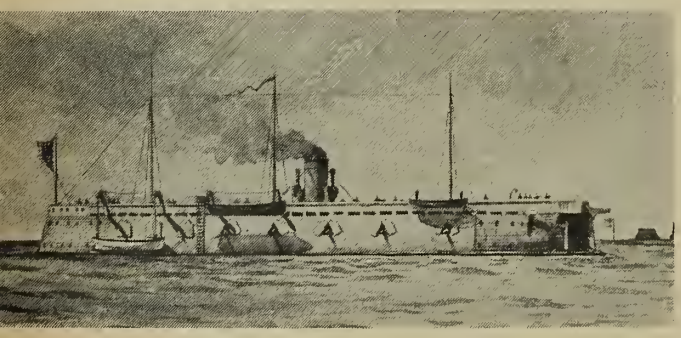
As soon as Major General Terry arrived, we arranged together a plan of operations, which have proved successful.

The weather was threatening, and I advised the general to get his transports inside the harbor to avoid the violence of the coming gale; most of them, however, lay outside.

The gale blew very heavy for two days and nights. The ships-of-war all held on, and rode out at their anchors except *Colorado,* which was obliged to go to sea, as she had only one anchor left. With this alone she could not possibly have ridden out the gale, the sea being very heavy from the southwest, and breaking clean over the vessels. Knowing that the transports had arrived, the commanders all made strenuous exertions to keep their vessels at anchor off Beaufort, North Carolina, to be ready for the move that was about to be made.

Having expended almost every shot and shell in the first bombardment, it became necessary to take in about fifteen thousand more, and fill up with coal, which was done under the most adverse circumstances, the large vessels all lying outside in a heavy sea, and filling up as best they could.

NEW IRONSIDES leads the monitors in close to the shore batteries to draw fire and locate position of fort's guns.



The fleet, accompanied by the transports, steamed away on the 12th for Fort Fisher, and the wind being fair and moderate, I was in hope that we would be able to land the troops by 9 or 10 o'clock that night.

Some of the vessels that accompanied the last expedition were badly damaged in various ways. *Sassacus* had both rudders disabled, but was ready in time. *Mackinaw* had one of her boilers knocked to pieces, but her commander would go on one boiler. *Osceola* was in the same condition—one boiler smashed up with shot and a hole near the bottom—was ready for anything, and I heard no complaint from anyone. With such a disposition on the part of the officers, I anticipated the most favorable results.

At 8.30 a.m. signal was made to the fleet to send boats to transports to land troops. At 2 p.m. we had landed 8000 men, with 12 days' provisions and all their intrenching tools.

The different lines having formed into line of battle, steamed toward Fort Fisher, with *Colorado* leading, (*Minnesota* having got a hawser around her propeller). The vessels took their positions handsomely—having had some practice at that place—and delivered their fire as they fell in. The rapid fire of the monitors and *Ironsides* kept the rebels partly away from their guns, and they inflicted no damage on the fleet, the firing being very unsteady; indeed, I don't see how they could fire at all. After lines Nos. 1 and 2 got fairly anchored in position, the bombardment was very rapid and severe. This was continued without intermission from 4 p.m. until some time after dark, when the wooden vessels were ordered to haul out the anchor. The monitors and *Ironsides* were directed to keep up the fire during the night. The enemy had long ceased to respond to our fire, and kept in his bomb-proofs.

Having found that the rebels could still bring some heavy guns to bear, which annoyed us somewhat, I determined to try another plan, and on the morning of the 14th ordered in all the small gunboats carrying 11-inch guns to fire slowly and try and dismount the guns on the face of the works where the assault was to be made. *Brooklyn* was ordered to throw a pretty quick fire to keep the rebels from working their guns. The attack was commenced at 1 p.m. and lasted till long after dark.

One or two guns only were fired this day from the upper batteries, inflicting no serious damage on any of the vessels except cutting away the mainmast of *Huron,* and hitting *Unadilla* once or twice. These guns we silenced when a rapid fire was opened. The attack of the gunboats lasted until long after dark, and one vessel was employed firing (an hour each) throughout the night.

It was arranged between the general and myself that the ships should all go in early, and fire rapidly through the day, until the time for the assault came off. The hour named was 4 p.m. I detailed 1600 sailors and 400 marines to accompany the troops in the assault—the sailors to board

the sea face, while the troops assaulted the land side.

Most of the sailors were armed with cutlasses and revolvers, while a number had Sharpe's rifles or short carbines. There was a perfect understanding between the general and myself, and a system of signals established (by the Army code) by which we could converse at our pleasure, though nearly a mile apart and amid the din of battle.

At 9 a.m. on the 15th the squadron was signalled to attack in three lines. All the vessels reached position at about 11 a.m. and each opened fire as they got their anchors down.

The same guns in the upper batteries opened again this day, with some effect, as you will see by reference to the reports of the different commanders; but no vessel was injured sufficiently to interfere with her efficiency. The fire was kept up furiously all day. The Mound Hill battery kept up rather a galling fire with its two heavy guns, but the rebels were driven away from the works into their bomb-proofs, so that no vessel was disabled.

At 2 o'clock I expected the signal for the vessels to "change the direction of their fire," so that the troops might assault. The sailors and marines had worked by digging ditches, or rifle-pits, to within two hundred yards of the fort, and were all ready. The troops, however, did not get into position until later, and at 3 o'clock the signal came. The vessels changed their fire to the upper batteries; all the steam-whistles were blown, and the troops and sailors dashed ahead, nobly vying with each other to reach the top of the parapet; we had evidently (we thought) injured all the larger guns, so that they could not be fired to annoy any one. The sailors took to the assault by the flank along the beach, while the troops rushed in at the left through the palisades that had been knocked away by the fire of our guns.

All the arrangements on the part of the sailors had been well carried out; they all succeeded in getting up to within a short distance of the fort, and lay securely in in their ditches. On rushing through the palisades, which extended from the fort to the sea, the head of the column received a murderous fire of grape and canister, which did not, however, check the officers and asilors who were leading. The parapets now swarmed with rebels, who poured in a destructive fire of musketry.

I witnessed the whole affair, saw how recklessly the rebels exposed themselves, and what an advantage they gave our sharpshooters. Notwithstanding the hot fire, officers and sailors in the lead rushed on, and some even reached the parapet, and a large number reached the ditch.

In the meantime the troops were more successful on their side. The rebels, seeing so large a body of men coming at them on the sea side, were under the impression that it was the main attack, and concentrated the largest part of their forces at that point, and when they gave three rebel cheers, thinking that they had gained the day, they received a volley of musketry from our gallant soldiers, who had been successful in gaining the highest parapet. Then commenced such a system of fighting as has never been beaten. Our soldiers had gained two traverses, while I directed *Ironsides* to fire on the traverses occupied by the rebels. Four, five, and six traverses were carried by our troops in the space of an hour.

These traverses are immense bomb-proofs, about 60 feet long, 50 feet wide, and 20 feet high, 17 of them in all, being on the northeast face. Between each traverse or bomb-proof are one or two heavy guns. The fighting lasted until 10 o'clock at night, *Ironsides* and the monitors, firing through the traverses in advance of our troops, and the level strip of land called Federal Point being enfiladed by the ships to prevent re-inforcements reaching the rebels.

General Terry himself went into the fort, and I kept up a constant communication with him until three hearty cheers, which were taken by the fleet, announced the capture of Fort Fisher. Finding that the general felt anxious about the enemy receiving re-enforcements, I directed the sailors and marines to relieve the troops in the outer line of our defences, and a large number of soldiers were thus enabled to join our forces in the fort.

It will not be amiss for me to remark here that I never saw anything like the fearless gallantry and endurance

BOMBARDMENT of the Fort came from ironclads in close and heavier fire from wooden ships further out.

displayed by our troops. They fought like lions, and knew no such word as fail. They finally fought and chased the rebels from traverse to traverse until they reached Battery Lamb, or the Mound, a face of work extending about 1400 yards in length. At this point the rebels broke and fled to the end of Federal Point. Our troops followed them up, and they surrendered at discretion.

Thus ended one of the most remarkable battles on record, and one which will do more damage to the rebel cause than any that has taken place in this war. Twenty-three hundred rebels manned Fort Fisher; 1900 were taken prisoners; the rest were killed or wounded. I may have stated some inaccuracies with regard to these military matters, which I will leave to General Terry to supply.

I have since visited Fort Fisher and the adjoining works, and find their strength greatly beyond what I had conceived. An engineer might be excusable in saying they could not be captured by regular siege. I wonder even now how it was done. The work, as I said before, is really stronger than the Malakoff tower, which defied so long the combined power of France and England; and yet it is captured by a handful of men under the fire of the guns of the fleet, and in seven hours after the attack commenced in earnest.

I cannot say too much in praise of the conduct of this fleet during the time we have been engaged in these operations. I do not know an officer in command who has not performed his duty to the best of his ability. There may be some who have done better than others, but, after all, that may be a mere matter of opinion.

As soon as the forts were taken, I pushed the light-draught gunboats into the river; that is as soon as I could find and buoy out a channel and take up the torpedoes, which were very thick. We found the wires leading to may, and under-ran them with boats. We found the torpedoes too heavy to lift with our ordinary boats, and they must have contained at least a ton of powder. The rebels seemed disposed to pay us back for the famous torpedo Louisiana, which exploded in their harbor.

We had some difficulty in getting the vessels across the bar and into the river, as the channel is very narrow and the bar very shoal; a few of them got stuck, but were got off again with the tide. We all came to the conclusion that we had followed the right plan to capture Fort Fisher, one in which the nautical man of any sense will concur. After I got three of the gunboats inside the bar and under the Mound the rebels prepared to evacuate Fort Caswell. Two steamers near the fort (which I think were *Tallahassee* and *Chickamauga*) were set fire to and blown up after the rebels had set fire to the fort that blew up last night with a heavy explosion, followed by some minor ones. The barracks were apparently in flames all night, and some little works between this and Caswell blown up. I have sent vessels to see what has been done, and shall be governed accordingly.

I think they are burning up everything in Wilmington, and are getting away as fast as they can. In the meantime a large force of gunboats occupies the river between Caswell and Wilmington. That place is hermetically sealed against blockade-runners, and no *Alabamas* or *Floridas, Chickamaugas* or *Tallahassees* will ever fit out again from this port; and our merchant vessels will soon, I hope, be enabled to pursue in safety their avocation.

We expended in the bombardment about 50,000 shells, and have as much more on hand. I feel much indebted to the Bureau of Ordnance for so promptly supplying us.

The number of guns captured in these works amounts to 75, many of them superb rifle pieces and very heavy calibre.

All of those facing the ships were dismounted or injured so they could not be used, or the muzzles were filled up with sand or dirt, which rendered them useless.

REPORT *of LCDR James Parker,* Minnesota 16 *Jan* 1865:

The party of officers and men detailed from this ship in the assault upon Fort Fisher consisted of 190 officers, sailors, and firemen, and of 51 marines. The sailors were divided into four companies, to which proper sergeants and corporals were assigned. Very many of the men had been in the army. Such as had been were armed with Sharpe's rifles, and the rest with cutlasses and revolvers.

The whole party, 241 in all, was under my command. We left the ship at 11 a.m., and landed on the beach about one mile and a half from Fort Fisher.

The sailors were formed in three divisions according to the divisions of the fleet, each division under the command of the senior officer from that division. The men were formed in column, and advanced up the beach towards Fort Fisher some distance. The enemy opened up on us with shell and grape, and it was deemed advisable to form in line. This was done, the marines in front, and then the march towards the fort resumed by the right flank of companies. Discovering that the beach offered some protection to the force, the flank march was again resumed, and we went along the beach close to the water's edge until about a mile from the fort. Here the men were ordered to lie down under cover of the crest of the beach to await the assault of the army. The enemy kept up the fire with their rifles, and occasionally treated us to a stand of grape, while the shells of the fleet passing over us on their way to the fort made horrid music, and some few bursting prematurely, scattered rather nearer than was agreeable.

About 3 o'clock the troops were observed moving to the assault, and the order was given to the sailors and marines to advance. This they gallantly and rapidly did under a very heavy fire of musketry and occasional grape from the enemy, which became very hot as the fire from the fleet ceased.

The assaulting column pressed forward until we reached the palisades of the fort at their point of junction with the beach, and a few of the officers and men pressed beyond them a few yards.

Here the fire of the enemy became so hot that the advance along the beach was checked and the direction of the advance was changed along the palisades. Many officers and men had been killed, and large numbers wounded. I had been fortunate enough to reach the palisades in safety, and was among those at the point nearest the fort. Quite a large number (perhaps 200) of officers and men were congregated along the palisades; all the officers from this ship, including Captain Butler of the marines, were there, except Lieutenant Woodward; and the latter was near some sand-hills only a few yards off. Very nearly all our sailors were there, and some of our marines.

While reconnoitering through the palisades, I observed quite a number of the enemy upon the parapet of the fort without arms, waving their hats to us as if desirous to surrender. I gave the order to advance, and advanced to the top of the sand-hill, and partly through the beach than in the palisades. As I did so, I turned to see if the

others were following, and, to my surprise, I saw that only about sixty remained with me. Finding that the enemy were concentrating their fire upon those who remained, I ordered these behind the palisades and went myself.

Here the party remained until dark, when we came safely away, bringing with us our wounded, our arms, and colors.

It gives me great pleasure to testify to the gallant conduct of the officers and men from this ship. It is my belief that nearly all the men reached the palisades. Of about 20 to 25 (not more than the latter) dead that fell at that point, eight were sailors of the *Minnesota.*

REPORT *of Acting Ensign George H. Wood,* Chippewa *January* 1865:

With a crew of 15 men, armed with cutlass and revolvers, I proceeded in the ship's launch to the flag-ship *Malvern* to report for duty as part of the storming party. We landed through the surf safely, leaving two men in charge of the launch as boatkeepers. Soon after Acting Ensign William H. De Grosse, from this vessel, landed in charge of the first cutter and seven men, armed. By 1.30 we were drawn up in line of battle. It was then that Rear-Admiral Porter's orders were read to us, and it was 3 p.m. when we made our advance.

While marching up the beach, our line being changed into columns, the marines passed us next to the water, on the double-quick, going towards Fort Fisher. The enemy's bullets began to pick off our men, and the order was given for us to lie down, and I think that some of our men were wounded then. Soon after the order was given to advance, and we started on the double-quick and advanced, to the best of my knowledge, within eight hundred yards of Fort Fisher, when the order was again given to halt, and we got under cover as much as possible. This was what the men needed, for we were out of breath.

Soon after the order was again given to charge, and, with revolvers in one hand and cutlasses in the other, we made the charge, the *Chippewa* men keeping in good order, Mr. De Grosse on the left and myself on the right. It was near the stockade that our ranks were thinned so badly. I saw that there were but few men ahead of our little party, when I turned to urge my men on—William McGill was close to me, bearing our flag bravely, and Mr. De Grosse a little to the rear, with his sword waving high in the air, shouting to the men to come on. Here is where our lines were broken, but we still kept on parallel with the stockades, which are built from the beach to the fort. There was an opening in the stockades, which we made for, and it is here I passed Lieutenant Commander James Parker in this opening, shouting for the men to come on. When I passed through this opening there were five men ahead of me, William McGill, Richard Gallagher, John Wilson, and two other men (not of our ship). I wish I knew the brave fellows' names; one of them was shot.

I went 50 feet up on the other side of the stockade; and when I saw no one was following me I retreated to get behind a pile of sand which was thrown up at the opening in the stockades. They were about 12 feet high, and were on a line up from the beach and it was through this opening we tried to enter; but it was too hot. The parapets of the fort seemed to be lined with men. We could not return the fire even one shot for one hundred. I was completely exhaused, for we had made a long charge.

I crawled in back of the stockade, and there I found 60 officers and men throwing up sand against the stockade for protection. I joined the number, and commenced throwing up sand also, and it seemed that for every handful of sand thrown up, there ten bullets came. I found four of *Chippewa's* men, and have since learned that another was there, but down at the end of the stockade, with Lieutenant R. K. Lamson, who lay there wounded in the arm. When dark set in we retreated down the beach, one by one, and with my four men we picked up a wounded sailor, bringing him down the beach with us to the hospital, which was about half way from the Half Moon battery to Fort Fisher. Leaving the hospital, I fell in with three or or four more of my men, and falling in with one of our commanding officers, I was ordered to take my men and go down to army headquarters.

The fall of Fort Fisher was followed by an advance on the capture of Wilmington, some miles up the Cape Fear River, and by virtually the complete cessation of blockade running, since no other port was now available. Lee's army was thus deprived of a source of food and other supplies upon which it had been forced to depend, and the operation, therefore, contributed to the evacuation of Richmond a few months later and to the final surrender at Appomattox Court House.

IRONCLAD FLEET rides out one of the gales which Fort Fisher defenders hoped would stop the attack.

TAFFRAIL TALK

WHAT WITH ALL these new launchings of super-super ships, local shipyards may be interested in a trade secret we picked up in India. It seems that, to ensure a successful launching, each vessel reaches the water at Vizagapatnam via a poultice of squashed bananas—28,000 of them for the larger vessels. We think it's a slick idea.

★ ★ ★

Navy recruiters received an unexpected assist because the commanding officer of Navy Communications Facility, Port Lyautey, fell into the habit of patronizing one specific gas station.

Through typical gas-station conversations, he learned that the manager, Lawrence Kruse, was a former radioman third, and was earlier attached to NavCommFac, Port Lyautey. At the nominal cost of six months' conversation regarding the advantages of Navy life and an unstated consumption of gasoline, the CO accomplished his mission and Kruse was induced to resume his naval career.

His first skipper? None other than CAPT F. R. L. Tuthill, USN, commanding officer, Naval Communications Facility, Port Lyautey.

★ ★ ★

Speaking of recruiting, it may interest you to know that James D. Sailor, from Talladega, Ala., has decided to become one. And appropriately enough, Joyce Wave, of Panama City, recently joined the Waves. We can't help but wonder how an EM named Admiral would make out. Unfortunately, there aren't any of them in the Navy at the present time.

★ ★ ★

Say what you will, the Navy eats well. The Provision Supply Office informs us that the men and women of the Navy will consume about half a million tons of food in general messes this year. This includes some 80,000 tons of meat, fish and poultry, 140,000 tons of fresh fruit and vegetables, 13,000 tons of frozen foods, 6000 tons of butter and 7000 of coffee, in addition to mountains of canned and processed food and bakery products.

★ ★ ★

At times it's hard to get away from a discussion of food. Three MSTS ships—a couple of LSTs and an FSR (Army refrigerator ship)—are making daily shuttle runs from Japan to Korea, carrying tomatoes, cucumbers, cabbage, carrots, beats, lettuce, spinach, turnips, onions and radishes to the dinner tables of the armed forces in Korea.

The FSR is equipped with a special refrigerator unit, but a different system is used for the LSTs. Trucks back their vans through the open bow doors into the tank decks. The truck cabs are driven out, leaving the vans containing the vegetables in the ships ready to unload upon arrival in Korea.

To guarantee against contamination, all the vegetables are grown by hydroponics—the science of growing plants without soil in a liquid chemical solution.

The All Hands Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 17 June 1952, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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Distribution: By Section B-3203 of the Bureau of Naval Personnel Manual the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

In most instances, the circulation of the magazine has been established in accordance with complement and on board count statistics in the Bureau, on the basis of one copy for each 10 officers and enlisted personnel. Because intra-activity shifts affect the Bureau's statistics, and because organization of some activities may require more copies than normally indicated to effect thorough distribution to all hands, the Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the numbers of copies required; requests received by the 20th of the month can be effected with the succeeding issues.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Requests from Marine Corps activties should be addressed to the Commandant.

REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin.

• AT RIGHT: CREW MEMBERS OF USS *Tidewater* (AD 31) relax in their ship's lounge while reading for knowledge and pleasure from books of their sea-going library.

CODE OF CONDUCT

I I AM AN AMERICAN FIGHTING MAN. I SERVE IN THE FORCES WHICH GUARD MY COUNTRY AND OUR WAY OF LIFE. I AM PREPARED TO GIVE MY LIFE IN THEIR DEFENSE.

II I WILL NEVER SURRENDER OF MY OWN FREE WILL. IF IN COMMAND I WILL NEVER SURRENDER MY MEN WHILE THEY STILL HAVE THE MEANS TO RESIST.

III IF I AM CAPTURED I WILL CONTINUE TO RESIST BY ALL MEANS AVAILABLE. I WILL MAKE EVERY EFFORT TO ESCAPE AND AID OTHERS TO ESCAPE. I WILL ACCEPT NEITHER PAROLE NOR SPECIAL FAVORS FROM THE ENEMY.

IV IF I BECOME A PRISONER OF WAR, I WILL KEEP FAITH WITH MY FELLOW PRISONERS. I WILL GIVE NO INFORMATION OR TAKE PART IN ANY ACTION WHICH MIGHT BE HARMFUL TO MY COMRADES. IF I AM SENIOR, I WILL TAKE COMMAND. IF NOT I WILL OBEY THE LAWFUL ORDERS OF THOSE APPOINTED OVER ME AND WILL BACK THEM UP IN EVERY WAY.

V WHEN QUESTIONED, SHOULD I BECOME A PRISONER OF WAR, I AM BOUND TO GIVE ONLY NAME, RANK, SERVICE NUMBER AND DATE OF BIRTH. I WILL EVADE ANSWERING FURTHER QUESTIONS TO THE UTMOST OF MY ABILITY. I WILL MAKE NO ORAL OR WRITTEN STATEMENTS DISLOYAL TO MY COUNTRY AND ITS ALLIES OR HARMFUL TO THEIR CAUSE.

VI I WILL NEVER FORGET THAT I AM AN AMERICAN FIGHTING MAN, RESPONSIBLE FOR MY ACTIONS, AND DEDICATED TO THE PRINCIPLES WHICH MADE MY COUNTRY FREE. I WILL TRUST IN MY GOD AND IN THE UNITED STATES OF AMERICA.

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

FEBRUARY 1956 Navpers-O NUMBER 468

VICE ADMIRAL JAMES L. HOLLOWAY, Jr., USN
The Chief of Naval Personnel
REAR ADMIRAL MURR E. ARNOLD, USN
The Deputy Chief of Naval Personnel
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• **FRONT COVER: NOTHING LIKE IT!** A cheery word from home is shared by L.D. Gibson, FP1, USN, with his shipmate R.A. Urquhart, DC1, USN, during mail call at sea on board USS *Calcaterra* (DER 390).

• **AT LEFT: STANDING BY FOR EVENING COLORS.** Whitehats wait at the stern of their ship ready to lower the colors as the sunlight fades on the harbor waters at Norfolk.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

ETs and FTs—Navy's Electronic Twins

LIGHTNING flashed across the sky and dimmed the setting moon so that it looked like a single bulb burning on the empty tank deck of an LST. Thunder echoed across quiet waters to announce an approaching battle. It was almost as if mother nature had been dealt a hand in the Battle for Leyte Gulf—a battle that insured naval supremacy to the Allied fleet.

The Battle for Leyte Gulf was fought almost simultaneously on three different fronts—Surigao Strait, off Samar and off Cape Engano. At Surigao Strait fire from the Navy's PT boats confirmed the approach of the Japanese fleet alrady expected by the U.S. Navy. Aboard his flagship the "Lady Lou," Rear Admiral Jesse B. Oldendorf, USN, had devised a trap and once the Japanese moved into it he passed the word to "open up." Immediately the booming of explosives and screaming sound of dying ships sounded a crescendo through the strait that was the swan song of the Japanese Imperial Fleet.

While they were firing at targets more than eight miles away the U.S. Navy literally blasted the enemy from the water and helped to bring the end of World War II a little closer. It was the battle for Japan's life and it was won by the superior forces of the U.S. Navy.

In addition to the strategic planning and all-out effort of the Navy as a team, the Battle for Leyte Gulf was highly successful because U.S. countermeasures blinded Japanese radar and at the same time permitted the U.S. Navy radar to pinpoint the enemy and enabled the fire control equipment to operate with deadly accuracy.

This battle and other battles in World War II lifted the curtain on the Navy's debut into the world of electronics on a large scale.

The progress in electronics since World War II has gone beyond man's farthest dreams. Electronics has moved into every walk of life, in many cases enabling machines to replace men, working wonders that astound the layman and providing a proficiency never expected of man.

Keeping pace with electronic developments the Navy makes extensive use of modern radio transmitters, receivers, other equipment employing electronics in communications, range finding, fire control, radar, sonar, guided missiles and atomic warfare.

To handle this equipment the Navy has gone all out in its efforts to train personnel to operate it and, equally important, to keep it in operating condition—this is the job of the Electronics Technician and the Fire Control Technician.

Electronics Technicians perform the upkeep and repair of the Navy's radio communication equipment that enables the Navy to send its messages around the world. A ship in distress can call for help, another ship can answer the call and pick up the location of the ship in trouble by means of radio. In times of emergency, radio breakdown can mean the difference between life or death—for radio is the "voice" of the Fleet.

Another part of the ET's job is to keep the radar in operating condition. Radar is the "eyes" of the Fleet and in addition to guiding a ship through perilous fog and storms it enables the Navy to pinpoint enemy targets in time of warfare.

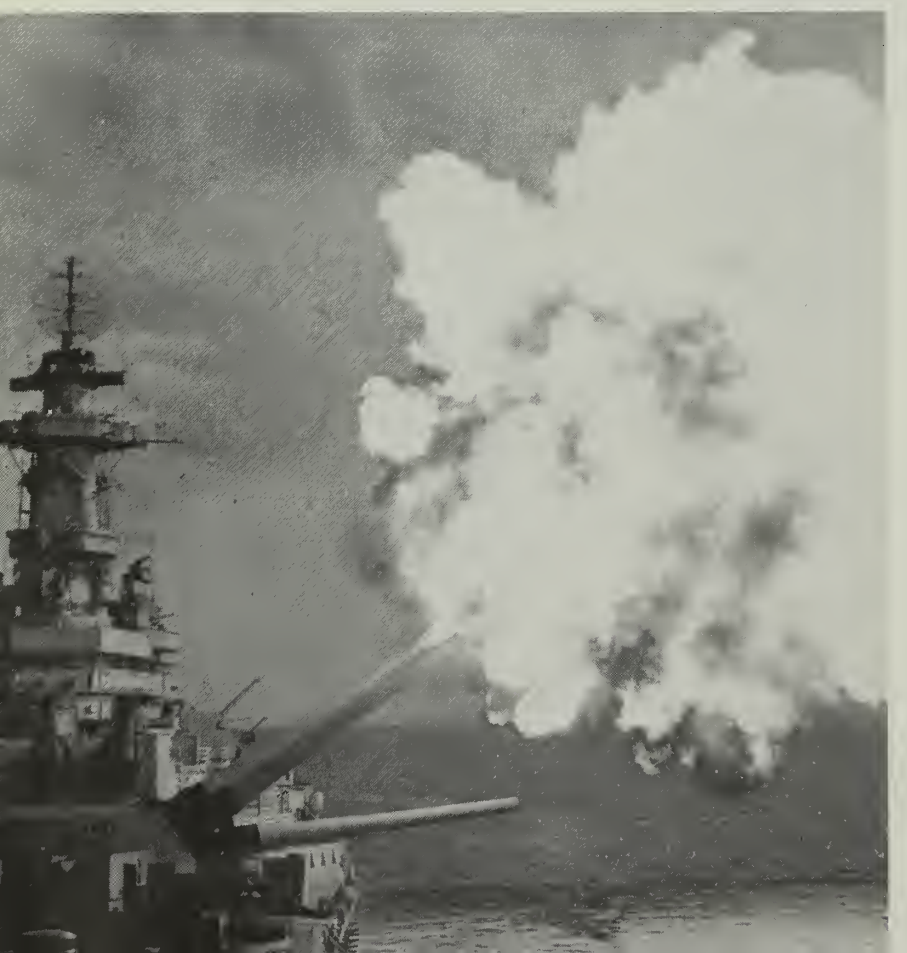
The ETs also maintain and repair sonar equipment—the underwater "ears" of the Fleet that keep ships from running onto jagged reefs, guides them through mine fields and locates enemy submarines.

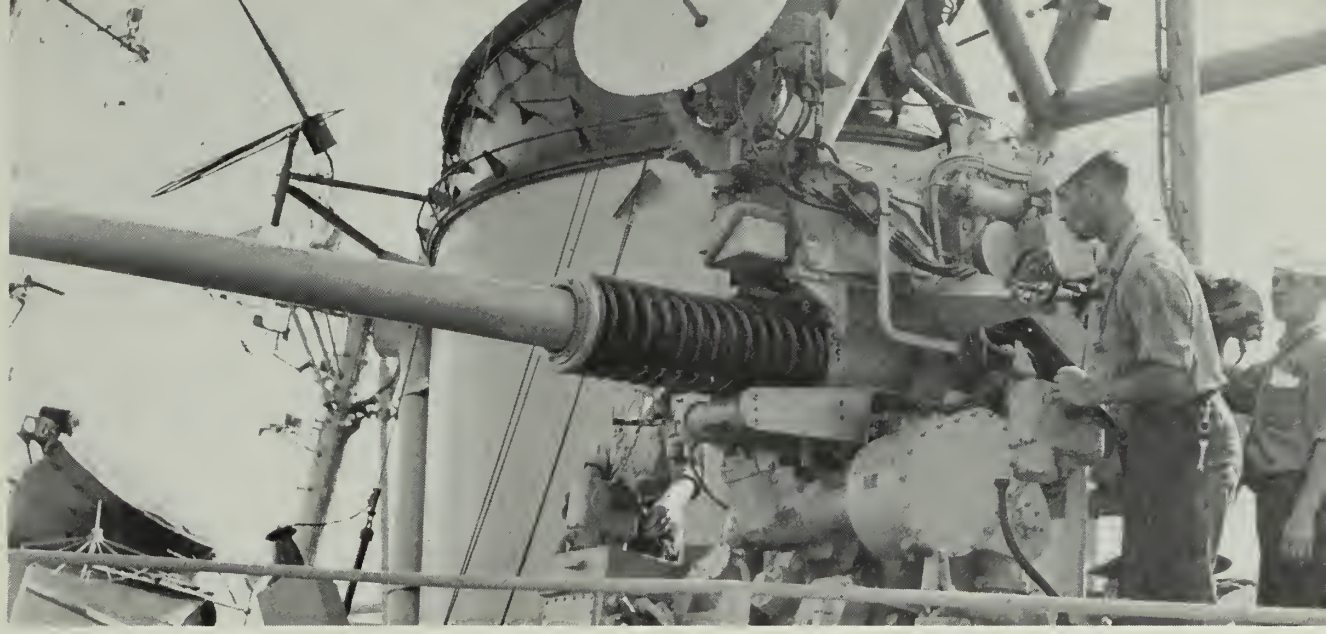
ETs are constantly on the alert for any signal of possible breakdown in electronic equipment. With their tools and testing devices they work with the skill of a surgeon to keep delicate equipment operating and prevent any breakdown before it happens.

Warfare today is a far cry from the old "broadside firing" of John Paul Jones. Today the Navy's targets are out of sight—a gunner is seldom able to see his target because it lies beyond the horizon. Instead, he must depend on the electronic equipment of the Fire Control Technician.

From the conglomeration of gears, shafting, tubes, dials and figures that make up the FT's radar, gun dirce-

WITH ELECTRONIC CONTROLS and radar that are the responsibility of Fire Control and Electronics Technicians, Navy's guns can blast enemy miles away.



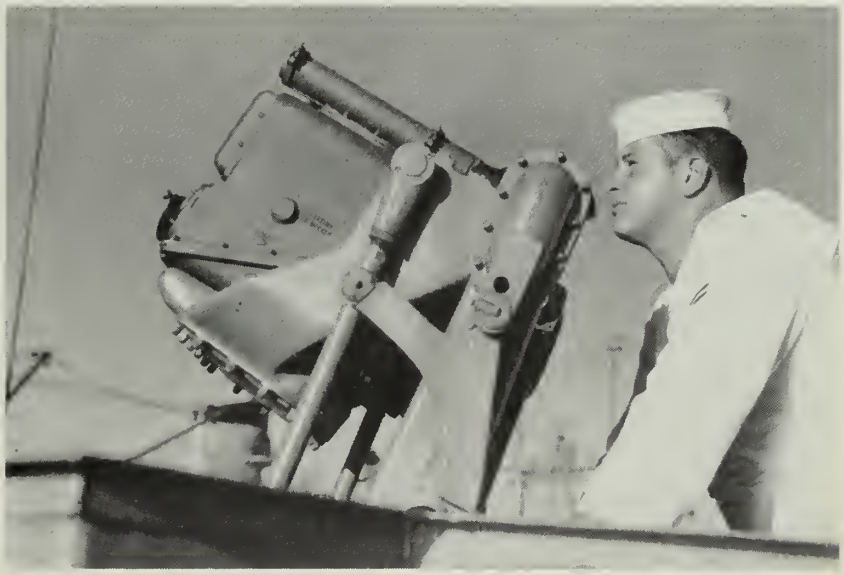


BLUEJACKETS' 'BABY'—ETs keep radar shipshape while FTs maintain controls of 3 inch 50 aboard USS *Laffey* (DD 724).

tors, computers and range finders comes the answer to the myriad problems involved in naval gunnery. It is this answer that enables Navy guns to operate with such deadly accuracy.

While ETs are responsible for the eyes, ears and voice of the Fleet, the FTs take care of the powerful "arm" that reaches over the horizon and points out an enemy target, then delivers the knock-out punch that puts the enemy out of action.

A growing emphasis on the electronic aspects in warfare has resulted in rapid increase in the Navy's need for highly skilled technicians. The increase in requirements has created shortages in ET and FT ratings which open an attractive and rapid path of advancement to eligible Navymen. Have you ever thought of going into electronics?



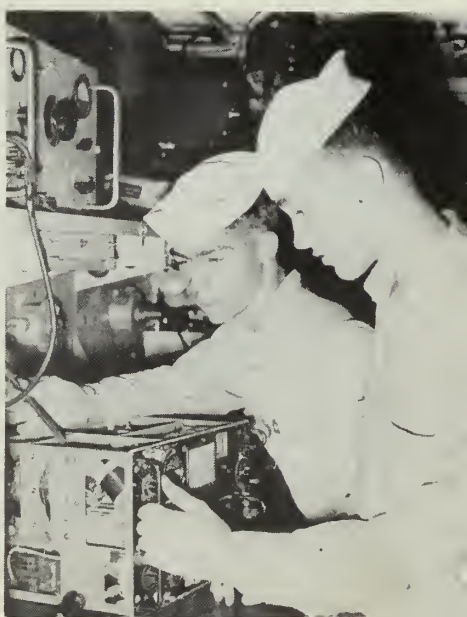
FIRE CONTROL GEAR of USS *Calcaterra* (DER 390) checked by K. F. Drew, FT 3, USN. *Below:* Electronics Technicians make repairs on USS *Intrepid* (CVA 11).

If you have had any training in radio, electricity, physics, algebra, trigonometry or shop it might help you to get into electronics. Also any experience in amateur radio or practical experience in any mechanical or electrical trade would help, but most important of all you must have a keen intrest and aptitude for fine, detailed, mechanical work to be a good ET or FT.

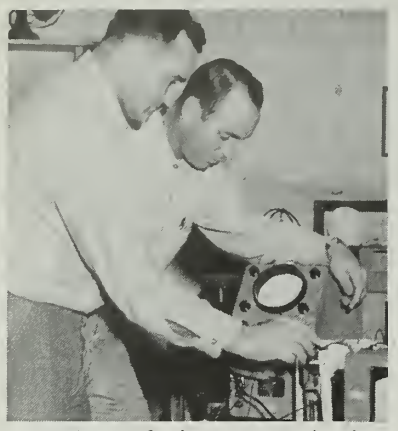
Navymen in recruit training may qualify on the Navy General Classification Test (which measures your ability to learn); on the Navy Arithmetic Test (which measures ability to use numbers in practical problems) and on the Navy Mechanical Aptitude Test (which measures potential ability for work of a mechanical nature and which indicates the extent of familiarity you have with mechanical and electrical tools, principles and operations). Also required is normal color perception.

Since the field of electronics is expanding, the chances for rapid advancement in the ET and FT ratings are very good and these ratings offer an excellent career opportunity. Valuable training received will enable you to continue your Navy work in civilian life after you retire.

Electronics in the Navy is just beginning and this is your opportunity to get in on the ground floor. The history of electronics lies in the future—what lies ahead for you?



These Men Are Training to Be Doctors to Navy's Electronic Eyes,



STUDENTS of Class A FT school at NRS, Wash., D.C., test audio section of a radio they built during course.

Training for FTs

The Class "A" Fire Control Technician Schools are located at the U. S. Naval Training Center, Bainbridge, Md.; Naval Training Center, Great Lakes, Ill.; and the Naval Receiving Station, Washington, D. C. The schools are open to Navymen direct from Recruit Training or selected from the Fleet. The length of the training is 19 weeks and covers basic electricity and electronics and the fundamentals of fire control systems.

Following the Class "A" FT School a man may be selected to go into one of the specialized equipment courses. Selected Navymen from the Fleet may also enter these eourses directly.

At **Washington, D. C.**, three equipment courses are available:

• *Target Designation System Mark 5.* This course lasts for three weeks and covers the technical maintenance of the TDS MK 5.

• *Gun Fire Control System Mark 56.* This course lasts for 13 weeks and offers complete maintenance training including basic electricity and power supply, Radar MK 35, tracking and computational circuits, alignment and repair.

• *Underwater Fire Control Systems, Mark 105* (10 weeks), *Mark 102* (18 weeks) and *Mark 101* (9 weeks). These courses cover the technical maintenance of underwater battery fire control systems.

At **Bainbridge, Md.**, and **San Diego, Calif.**, the following equipment courses are available:

• *Gun Fire Control System Mark 37.* This course lasts for 12 weeks and covers training in the automatic fire control in the Gun Director MK 37 System.

• *Gun Fire Control System Mark 63.* At Bainbridge this course is covered in six weeks, and in seven weeks at San Diego. It offers a detailed study of GFCS MK 63 which is designed to control the fire of 40mm and three-inch fifty caliber guns against air targets at ranges from 800 to 7000 yards.

At **Great Lakes, Ill.**, the following equipment courses are available:

• *Gun Fire Control System Mark 56.* This course lasts for 12 weeks and offers complete maintenance training including basic electricity and power supply, Radar MK 35, tracking and computational circuits, alignment and repair.

• *Gun Fire Control System Mark 37.* This course lasts for 12 weeks and covers training in the automatic fire control in the Gun Director MK 37 System.

• *Gun Fire Control System Mark 63.* This course lasts for seven weeks.

• *Underwater Fire Control System Mark 105.* This course lasts for 10 weeks and covers the technical maintenance of underwater battery fire control systems.

• *Target Designation Systems Mark 5 and Mark 6.* These courses last for six weeks each and cover the technical maintenance of the TDS MK 5 and MK 6 respectively.

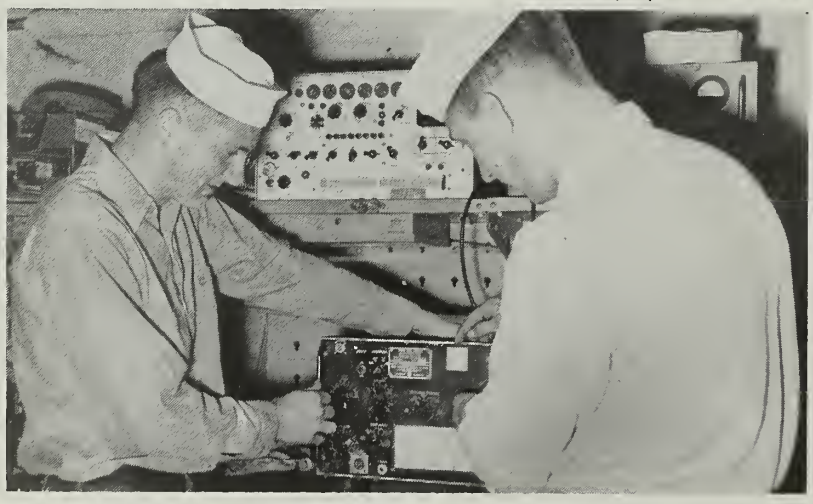
• *Gunar System.* This course lasts 14 weeks and covers principles of automatic directors.

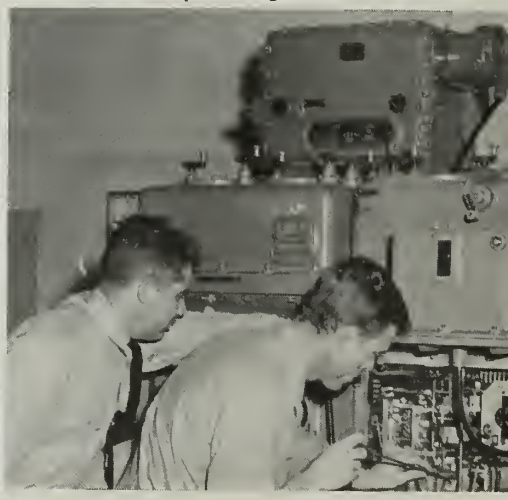
The Class "B" FT School has been moved from Washington, D. C. to U.S.N.T.C., Great Lakes, Ill. The length of the school has been increased from 44 to 46 weeks with the next class starting in April 1956. Navymen eligible for this school are FT2s and above or FT3s with one year's experience in rate in an operational billet. All candidates for the school must be in second or subsequent enlistment.

Training for ETs

The Class "A" Electronics Technician Schools are located at the U. S. Naval Training Center, **Great Lakes, Ill.**, and at the U. S. Naval Schools Command, Treasure Island, **San Francisco, Calif.** Both schools offer the following courses:

ELECTRONICS TECHNICIAN Third Class T. L. Ross (rt.) instructs seaman in radio repair. *Right:* FT students lear





Ears, Voice—and Fists

• *Electronics Technician Radar* (ETR). This course lasts for 26 weeks and covers basic electricity and electronics, mathematics (as required) and the maintenance and repair of search radar equipment.

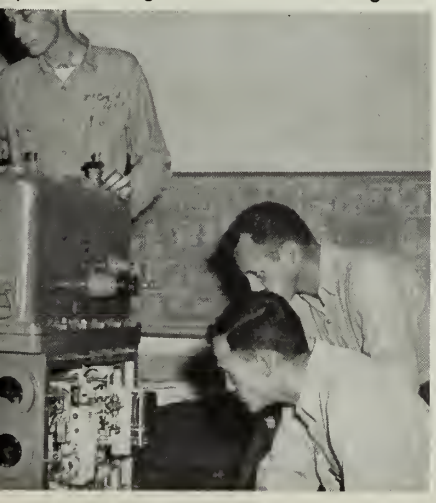
• *Electronics Technician Communications* (ETN). This course lasts for 24 weeks and covers basic electricity and electronics, mathematics (as required) and the maintenance and repair of communications equipment.

• *Electronics Technician Sonar* (ETS). This course lasts for 24 weeks and covers basic electricity and electronics, mathematics (as required) and the maintenance and repair of sonar equipment.

The Class "B" Electronics Technician School is located at U. S. Naval Schools Command, Treasure Island, ***San Francisco, Calif.*** The Class "B" School lasts for 28 weeks and covers advanced electronic theory and maintenance procedures. Class "B" courses are open to ET2 and above or ET3s with one year's experience in rate in an operational billet. All candidates must be in second or subsequent enlistment.

The Class "C" Electronics Technician Schools are located at Great Lakes, Ill., and San Francisco, California. The length of the courses at the Class "C" Schools range from one to six weeks. Each course covers instruction in the technical maintenance and repair of a specific piece of ET equipment and is open to rated ETs.

nplex wiring of fire control gear.



Operating in Electronics

BEFORE WORLD WAR II very little electronics work was done aboard Navy ships and planes. What there was, was confined to communication transmitters and receivers, radio direction finders and some sounding equipment.

Today, with the multitude of communication, radar, sonar, loran, countermeasure and fire control electronic gear, almost every Navyman comes into contact with electronics of some sort during the course of his duties. In addition to the ETs and FTs whose jobs are covered in the preceding pages, these ratings are directly concerned with some phase of electronics work:

• The ***Sonarman*** operates electronic underwater sound equipment used to detect the presence, direction and range of underwater and surface craft as well as submerged objects such as coral reefs, mines or sunken ships.

• The ***Radarman*** operates electronic radar equipment used in searching for and following the movements of other ships and aircraft, in navigation and maneuvering, in recognition and identification and in "jamming" the operation of enemy radars.

• The ***Torpedoman's Mate*** uses electronics when he checks, maintains, tests, repairs and overhauls underwater ordnance used on Navy ships and planes. This includes torpedoes, depth bombs, depth charges and ordnance detectors.

• The ***Mineman*** comes in contact with electronics when he assembles, tests, overhauls and maintains underwater ordnance such as the various kinds of mines and depth charges.

• The ***Teleman*** who operates and performs upkeep on teletypewriters, voice radio and electrical cipher machines comes in direct contact with electronics when he operates cryptographic aids and devices in encoding and decoding messages.

• The ***Radioman*** was one of the first ratings to become involved in the field of electronics. He operates radios, radio direction finders, teletypewriters and similar equipment. It is his job to keep this equipment in working order when technicians are not available.

• The ***Communications Technician*** employs electronics while acting as radio operator in monitoring actual circuits and in testing experimental radio techniques and equipment.

• The ***Electrician's Mate,*** who installs, operates, maintains and repairs such equipment as generators, electrical motors, and the lighting and power-distribution systems aboard ship comes in direct contact with electronics. Part of his work involves testing circuits for shorts, grounds and other casualties.

• The ***Interior Communications Electrician*** uses electronics to maintain and repair interior communications systems, synchro units, gyro-compass systems, engine order telegraphs, rudder position indicators, etc. He also maintains public-address systems, electric megaphones and other announcing equipment and sometimes shipboard film equipment.

• The ***Tradevman*** comes in contact with electronics while operating, maintaining, installing and repairing training aids and training devices. Some of the devices he works on are slide and film projectors, wire and other recording devices, flight engineer panels, low pressure and refrigerated altitude chambers and many kinds of trainers.

• The ***Guided Missileman*** uses electronics to a great extent in checking, testing, aligning, adjusting and repairing the Navy's guided missiles. He prepares the missile for firing or launching and also performs technical maintenance concerned with the repair of the missile or its equipment.

• The ***Aviation Guided Missileman*** like the GS is concerned with electronics in checking, testing, aligning, adjusting and repairing the Navy's air-launched missiles.

• The ***Aviation Fire Control Technician*** tests, maintains, adjusts, repairs, installs and operates aircraft electronic fire control equipment, systems and component parts.

• The ***Aviation Electronics Technician*** maintains, installs, repairs, adjusts, and tests all air-borne radio, radar, loran and radio altimeter equipment. The ***Aviation Electronicsman*** (whose job will be merged with the AT rating) operates, adjusts, tests and performs maintenance checks on electronic aircraft equipment.

Ted Sammon.

SUCCESSFUL BATTLE of transports against arctic ice was made possible by four hard-working ARSs.

Salvage Ships Keep Dewline Running

AMONG THE HARDEST WORKING ships in the Arctic *Dewline* Supply Operation were the Navy's ARSs — salvage vessels.

These tiny vessels performed jobs ranging from recovering lost anchors to ice breaking (ALL HANDS, December 1955, p. 5). Most of them kept their crews working on a 24-hour schedule with occasional breaks.

A typical story of their cruise is that of the USS *Current* (ARS 22).

Current was one of four ARSs — *Grapple* (ARS 7), *Deliver* (ARS 23) and *Safeguard* (ARS 25) were the others — assigned to the *Dewline* Operation with Task Group 5.1.

Although *Current* is basically a salvage vessel, she reported to CTG 5.1 primarily to perform damage repairs. Her shallow draft, however, made her useful for more tasks.

Her first big job was reenforcing the cracked stem of USS *Andromeda* (AKA 15). To do this, a false deck was built in the forepeak tank just above the waterline. Approximately 24 bags of cement were poured into the makeshift cofferdam to brace the stem.

Many tasks followed *Current's* first assignment. She was later called for more repairs on *Andromeda* when the large cargo ship entered the Beaufort Sea. The busy *Current* did more patchwork on the AKA and recovered the cargo ship's anchor which was cut loose by ice.

Soon thereafter, *Current* was sent to free USNS *Sgt. Archer C. Gammon* (T-AK 243) which ran aground. *Gammon* remained aground four days before she was refloated. USCG *Northwind* (WAGB 282) aided *Current* in pulling *Gammon* free. It took 14 hours to get her refloated.

While refloating the AK, *Current* lost her port anchor and found herself with a six-inch manila line wrapped around her screw when the line snapped while being used to pull *Gammon* free. *Current* also had to replace her starboard rudder. This task was accomplished at sea under the supervision of George Burnette, BMC, USN. Burnette, claimed by shipmates to be one of the Navy's top salvage men, designed a special rig for repairing the rudder, and the rudder itself was fabricated aboard *Current*.

After making necessary repairs on herself, *Current* sailed for Barter Island, near the Northern Alaska-Canadian border, where she carried supplies between ships in that area and also escorted ships through ice.

From Barter Island, the salvage vessel headed for the little Alaskan town of Wainwright. She traveled through fog and ice as far as Newport Entrance, a distance of approximately 100 miles, without the aid of her radar, which needed repairs. At times there were only two feet of water under her keel.

While passing near Point Barrow, Alaska, she pushed through a nine-tenths ice concentration without icebreaker escort. Although her propellers were especially made for navigating through ice, she lost two blades from one of her screws as she bored her way through the region. At Point Barrow, *Current* was delayed several days until ice conditions permitted further movement. She finally reached Wainwright, forcing her way through heavy ice. The forward third of the ship had been reenforced with extra plating which kept her from suffering serious hull damage. Minor repairs were now made, enabling the salvage vessel to return to Point Barrow to perform her extensive repair duties.

Current's tasks at Point Barrow increased as the operation neared its

USS CURRENT (ARS 22) reported to DEWLINE supply operation primarily to perform damage repairs but her shallow draft proved useful for many tasks.

climax. During this time, probably the most critical phase of the operation due to the polar ice pack advancing toward shore, *Current* repaired six rudders on LSTs. Without these repairs, none of the vessels would have made it back to the United States under its own power. USS *Harris County* (LST 822) had a hole in her engineroom patched by *Current*, making her seaworthy.

Other duties performed by *Current* were repair of *Northwind's* fathometer, surveying with icebreakers, and pushing ice away from ships and anchor chains, thus keeping off-loading progressing.

While on surveying operations, she was preceded by a small boat with a portable fathometer. Even with this precautionary mancuver, *Current* ran aground several times.

Constant shuttling through ice and repairing ships were not the only problems which beset *Current*, however. Water temperatures which were usually around — and mostly below — freezing made it difficult for her divers to work. Divers going under water to evaluate damages sustained by other ships could stay down for only short periods. The cold seeped through their diving suits, especially around their hands and feet. Ordinarily, divers do not use gloves, but rubber gloves were taped to their suits and woolen gloves were worn underneath to protect the divers' hands in cold water. Air hoses also would freeze. Underwater welding was exceedingly difficult because surfaces could not be warmed sufficiently.

To keep divers continuously working a two-helmet system was devised. As the first air hose started to freeze, the diver was brought up. The helmet and air hose were placed in buckets of hot water and a second helmet fitted on the diver's suit to send him underwater again. This process was repeated when the second air hose started freezing.

When the crew was lucky to have free time, the major recreational facility available was a nightly movie. *Current* had no ship's store, no clothing and small stores and no post office. She didn't even have a disbursing officer, a situation which presented something of a pay problem.

The icebreaker USS *Staten Island* (AGB 5) went out of her way to provide these facilities to *Current's* crew. The icebreaker's disbursing office paid *Current's* ship's company so that the other facilities about *Staten Island* could be used by the salvage vessel's personnel.

RESCUE AND SALVAGE team included *USS Deliver above*, and *USS Grapple below*. They repaired ice damage and rescued ships running aground.

When *Current* left Point Barrow en route to her home port in Pearl Harbor all hands looked forward to a short tour of soft duty.

However, she had progressed only as far south as Point Hope when she found herself with one more job. The flagship USS *Mount Olympus* (AGC 8), last to leave Point Barrow, had sustained a gash below the water line just before breaking free of heavy ice and moving into clear water. *Current* made the repairs.

As *Current* left Point Hope, she had one last job remaining. The task was towing USNS *Sgt. Andrew Miller* (T-AK 242) until she met the fleet ocean tug USS *Chickasaw*, (ATF 83), 83), which took over.

Only then did *Current* set course for Pearl Harbor with a well-earned rest in prospect.

— Ed Gallardo, JO 2, USN.

FOURTH MEMBER of the group was *USS Safeguard* (ARS 25). Additional duties often included helping icebreakers clear path for 'thin-skinned' MSTS ships.

THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **GO REGULAR** — A selection board has recommended 96 Naval Reserve aviators for transfer to the Regular Navy under a continuing program.

The officers selected were all former Naval Aviation Cadets who become eligible to apply for transfer to the Regular Navy after completion of one year of service as a commissioned officer. Under the program for these officers a selection board meets twice a year to consider applications.

The selected officers will be transferred to the Regular Navy after administrative requirements have been met and the individuals have been determined to be physically qualified.

• **TEMPORARY DISABILITY RETIREMENT**—The service records of officers placed in a temporary disability retirement status will no longer be brought up to date and delivered to the officer in question. Instead they will be forwarded to the command having mobilization responsibility, according to BuPers Notice 1085 of 28 Nov 1955 and Change 18 to the *BuPers Manual.*

In addition, officers of the temporary disability retired list will now be accounted for through the personnel accounting system in accordance with *Instructions for the Navy Personnel Accounting System.* (NavPers 15642) in the same manner as other categories of inactive personnel.

Commandants of the naval districts and river commands have been notified to contact each officer currently on the Temporary Disability Retired List who is residing within the naval district, to obtain and maintain the Officer's Service Record and to advise him that he is now under cognizance of the commandant instead of the Chief of Naval Personnel. Officers placed on the Temporary Disability Retired List prior to the inauguration of the Officer Service Record (Form NavPers 3021) will be requested to furnish only those documents listed in BuPers Inst. 1085.7A.

• **BIG CHANGE**—Under the provisions of a new BuPers Instruction only one application is needed for consideration of *appointment to commissioned status* in the U.S. Navy under the Integration Program, the Limited Duty Officer Program and the Temporary Warrant Officer Program (W-1). The application must be submitted to your commanding officer *on or before* 1 *March* and can be for any or all of the programs.

In the application each candidate should state the program or programs in which he desires consideration. If eligible, he will be considered for each type appointment requested but will be selected for appointment under only one program.

One written examination will be given to cover all three programs. This will be administered throughout the Navy, annually, on 15 June.

Each Navyman interested in advancing to commisioned rank should read the new procedures as outlined in BuPers Inst. 1120.18C.

• **DIVIDENDS**—Regular annual dividends will be paid during 1956 on NSLI and USGLI policies.

Navymen who have already designated a dividend payment option for previous dividends, and who do not wish to change it, will not have to give the VA any additional authorization for the 1956 payment, nor do they have to make application.

A policy holder who wants to change the previous dividend payment option for the 1956 declaration, must notify VA well in advance.

• **RE-UP BONUS FOR INDUCTEES** — Men who have been inducted into the Navy may receive a discharge for the purpose of immediate reenlistment in the Regular Navy, or if they prefer, may be retained on active duty (without reenlisting) beyond the period for which they were inducted. If they choose to reenlist, they are entitled to a reenlistment bonus under the provisions of the Career Compensation Act of 1949 provided they have completed recruit training.

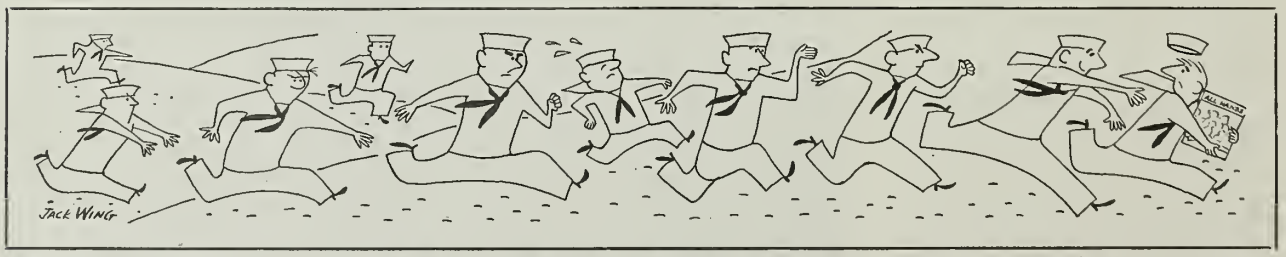
Commanding officers have been authorized by BuPers Inst. 1133.8 to discharge at any time men inducted into the naval service who desire immediate reenlistment in the Regular Navy.

Periods of reenlistment are as follows:

1. Prior to completion of basic recruit training or after completion of 21 months' inducted service—in both cases inductees may reenlist for four or six years. Note that the reenlistment bonus is payable in all cases of reenlistment except those where you ship over *before* completing basic recruit training.

2. After completion of basic recruit training and prior to completion of 21 months' inducted service — six years. Reenlistment bonus will be paid.

Subject to the approval of the commanding officer, a man who has been inducted may voluntarily execute an agreement to remain on active duty



PASS THIS COPY ON — You'll never win the race when the nine other contestants are after ALL HANDS.

for 12, 24, 36 or 48 months beyond his normal expiration of active obligated service. Under these circumstances, you must have sufficient time remaining in your period of UMT&S obligation to cover your period of retention.

To qualify for discharge and reenlistment, you must:

1. Be a citizen of the United States or, if an alien, present written evidence that you have made a legal declaration of your intention of becoming a U. S. citizen.

2. Meet the physical standards prescribed by BuPers Inst. 1130.3. Request for waivers of slight physical defects may be submitted.

3. Have no more than one dependent if you are in pay grade E-1, E-2 or E-3. There is no dependency restriction for reenlistment in pay grade E-4 and above.

If you are in pay grade E-1, E-2 or E-3, you will be reenlisted in the rate held at the time of your discharge. If you are in pay grade E-4 or above, and if you are in a rate listed as "open" in BuPers Inst. 1130.4C, you may be reenlisted in the rate held at the time of discharge. If not, you will be reenlisted in the next lower pay grade.

Inductees reenlisted in the Regular Navy are not entitled to mileage or lump sum payment for unused leave.

If you reenlist after you have served on active duty for one year, you are eligible for duty assignment options contained in BuPers Inst. 1306.25B or, if otherwise eligible, for assignment to certain Class B or C schools.

• **AWARDS WITHOUT MEDALS** — There are six awards currently authorized for wear by a number of Navymen for which no medals are issued by the Navy.

These are the Presidential Unit Citation, Navy Unit Commendation, Philippine Defense Ribbon, Philippine Liberation Ribbon, Philippine Independence Ribbon and the Korean Presidential Unit Citation Badge.

While a great many Navymen are authorized to wear these ribbons, no medal has ever been struck for these and requests for the medals cannot be filled.

In addition, ribbons for the last four awards are not issued by the Navy and must be purchased.

• **PRIMARY ELECTIONS** — Navymen may cast absentee ballots in primary elections scheduled during March in New Hampshire and Minnesota. They must be registered to do so, however.

In New Hampshire a presidential primary and constitutional convention election will be held on 13 March to elect delegates and alternate delegates-at-large and district delegates to the national conventions. Constitutional amendments will be proposed at this time.

In Minnesota a presidential primary election will be held on 20 March for party nominations for president and vice president and delegates to the national conventions.

• **UP AND ATOM**—Submarine enlisted men in six ratings are being given the chance to get in on the ground floor in the expanding field of nuclear power under the provisions of BuPers Inst. 1306.53.

Machinist's mates, enginemen, electronics technicians, electrician's mates, I.C. electricians and hospital corpsmen (the latter in pay grades E-6 and E-7 only) are needed for training in the field of nuclear power.

Only topnotch personnel will be accepted and to be eligible you must meet the following requirements:

Have at least four years' obligated service at the time of reporting.

Be designated "Qualified in Submarines."

Be physically qualified for submarine duty.

Volunteer for the program.

Be not more than 30 years of age.

Have a combined ARI/MECH score of 105 or higher.

Be a high school graduate or have the GED equivalent.

Have a clear record.

If you meet the requirements, submit your request via your commanding officer direct to the Chief of Naval Personnel (Attn: Pers B2251), giving all the above information.

If selected for training you will be given every opportunity and consideration for advancement and special assignment after your training. It is anticipated that the majority of men will be assigned duty aboard a nuclear powered submarine.

In all cases you will be advised as to what action is taken on your request. If you cannot be assigned to training immediately, you will be placed on a waiting list for assignment at some future date.

QUIZ AWEIGH

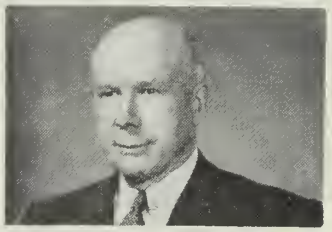
Refreshed from your holiday leaves and liberties, take five and see if you can't get at least four right on this months' quiz. If you begin to slip, you can get a better purchase on this line of questioning by turning to page 57 for the answers.

1. The above is the personal flag of the (a) Commanding General, Fleet Marine Force (b) Commandant, U.S. Marine Corps (c) Commanding General, Fourth Marine Division.

2. If you answered the above questions correctly, you'll know that this flag belongs to (a) General Clifton B. Cates (b) General Lemuel C. Shepherd (c) General Randolph McC. Pate.

3. Uniforms worn by men of foreign navies can be confusing, but you'll recognize the man in the above photo to be a member of the (a) Royal Canadian Navy (b) Spanish Navy (c) Royal Hellenic Navy.

4. The rank of the two men at the left is equal to the U.S. Navy rank of (a) Lieutenant Commander (b) Captain (c) Commander.



5. You should readily recognize the man pictured above as (a) Charles E. Wilson (b) Albert Pratt (c) Charles S. Thomas.

6. If you know the answer to the above question, you'll also know that the man holds a high public office. The position he holds was established by Congress in (a) 1947 (b) 1798 (c) 1845.

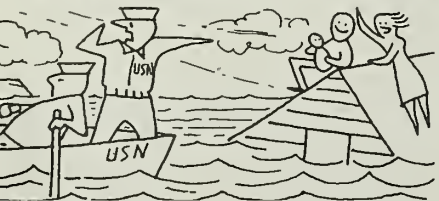
USS *Citizenship* Sails with Navy Crew

"IN DAYS OF OLD when knights were bold" citizenship was pretty much a matter of wearing the colors of your favorite dame and using your strong right arm in defense of the local strongman's regime. In the Navy's "good old days"—the days of iron men and wooden ships — love was where you found it, Marines were put aboard ship to keep you from killing the captain (in a manner of speaking, of course), and the word "citizenship" was too uncommon for any simple seaman to worry about.

In today's Navy you're not a bold knight (unless you can manage it while you're on liberty), and you're not an iron man (in the sense that the oldtime seaman had to be made of iron to withstand the rugged Navy life) — but it's a pretty sure bet that you're a U. S. citizen and you know it.

It's also a pretty safe bet that you've never given the subject much thought.

You knew you were exercising your citizenship when you voted —if you ever have voted. And perhaps you remember answering in the affirmative such questionnaire blanks as "Are you a U. S. citizen?" Otherwise, citizenship is just a two-bit word meaning that you were born in the United States, or went through the legal processes of naturalization — or that's what you think.



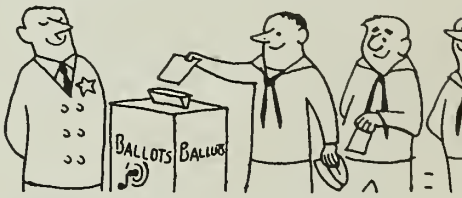
In boot camp, however, you had several instruction periods dealing with the dignity of the individual, the respect for truth as a basic difference between communism and democracy, the value of a democratic system of government and the "responsibilities and obligations of a sailor-citizen to uphold and to guard these democratic principles." What's more, the Navy has been giving you informal citizenship training ever since. But before we look at this informal training, let's see how citizenship has been defined.

In a very narrow sense, the meaning of the word includes your legal status and activities closely related to political functions, such as voting and holding public office. In the present-day world, however, citizenship also includes those personal qualities which make you a well-liked and useful member of the world society, whether aboard your ship or station, in your residential community — or in any spot on the globe that you happen to visit.

A recent study conducted by a national education group lists a minimum of five qualities which are important to good citizenship and which should be included in any program of citizenship education. The report states that "in general, the good citizen (a) cherishes democratic values, (b) recognizes the current problems of the times, (c) is aware of basic human needs, and guides his actions in accordance with these attitudes. He (d) practices democratic human relations, thus recognizing the interdependence of all people, and (e) possesses and uses the knowledge, skills, and abilities necessary for civic action as an American citizen."

How does your Navy training — formal and otherwise — fit in with these? Well, you're the only one who knows how you feel about our democratic values — our system of government by the people, including the social equality the system implies, or how strongly you believe in the rights and freedoms guaranteed by the U. S. Constitution. At any rate you have been taught, by both precept and example, to cherish such values, ever since the day you first shipped into the Uncle's sea service.

Considering the loyalty oath you have signed and the new military code of conduct, the global cold war and the Korean "hot war" against communist forces — all of which have affected your Navy career — no one can consider you totally unaware of what appears to be the nation's major problem, that of peaceful co-



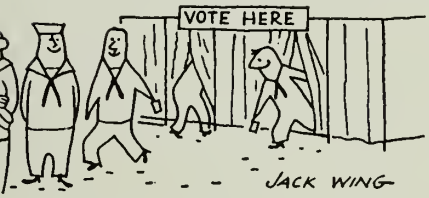
existence with other global powers. While it may be true that unemployment on a national scale, or farm surpluses, or public versus private power receive little thought from you, you may be sure that millions of your stay-at-home countrymen also ignore them, just as they tend to ignore the duties of citizenship on both the local and global levels.

Evidence of the Navyman's awareness of basic human needs and what he does about them can be found in

almost any newspaper you pick up. Just recall the Navy-led donations of clothing and food to needy villages in Europe and the Far East, the support of orphanages wherever Navymen are stationed, the thousands of projects for needy children, or communities or organizations engaged in charitable work.

As for practicing democratic human relations, take a check on your shipmates. Nine-tenths of the rank consciousness probably knocks off when you knock off work. You have as fellow crew members guys from half the states in the Union, including Negroes, Chinese, Filipinos, Japanese, perhaps a couple of lads who speak their parents' native tongue as easily as they do English. In any case, unless you are a "land-locked" sailor you've "fraternized" enough in foreign ports to have developed a healthy understanding of (and a high regard for) America's allies and friends.

Using the knowledge, skills and abilities necessary for civic action is somewhat difficult for Navymen on sea duty. But the Navy, through your ship's Information & Education office and your division voting officer, makes it easy for you to obtain absentee ballots for voting in national elections, and they can tell you where and when to request ballots for state elections. On the community level, you can pick any town that numbers Navy families among its citizens — and you will find them participating in activities ranging from the Cub Scouts to Parent-Teacher Associations, to say nothing of the endless list of improvement and beneficial projects cities and



towns usually have underway.

In helping you to become a better citizen, the Navy has several motives. For one thing, the Navy (like all of the military services, in fact) knows that a strong democratic nation must be based on citizens who are willing and able to assume the duties of citizenship. The higher brass also knows that citizenship training, coupled with a strong belief in American democracy, can make you a better fighter, one who is almost invulnerable to such indoctrination techniques as "brainwashing." And they realize that younger Navymen at least have had little opportunity to exercise their citizenship outside the service.

As pointed out by a recent presidential advisory committee, the lack of citizenship information—that is, a thorough knowledge of our government, politics, history, ideals and traditions — was one of the biggest things American POWs were up against in the Korean war. The committee found that many of the servicemen didn't know as much about the U. S. as their communist captors did, hence they weren't in any position to argue against the communist ideas. In short, the POWs

were unable to answer arguments in favor of communism with arguments for democracy, that is Americanism. The committee stated (as many other groups and individuals have done) that the responsibility for building good citizens lies in the home, the school, the church and the community — *and when men enter the Navy it becomes the Navy's duty to assume that responsibility.*

You can look at any issue of ALL HANDS — or any newspaper in the cities that come in close contact with Navymen and see how well Uncle's seamen stack up as U. S. citizens, how well the Navy is discharging its obligation in making you one of "America's finest."

For instance, recent issues of this magazine have printed stories which might have carried the following summaries as headlines: "Submarines Support Orphanage," "Navy Power Plant Saves Day for Salmon Fishermen," "Salvage Sailors Get Civilian Ships out of Tight Spots," "Good Neighbor Policy Sets Up Clinical Lab in Japan," "Navy Lends Hand in Polio Battle."

The last story told how men, women and machines were dispatched by the First Naval District to lend a hand during a recent polio epidemic in Greater Boston; the first one is a brief report on the latest contribution made by PacFlt's sub-

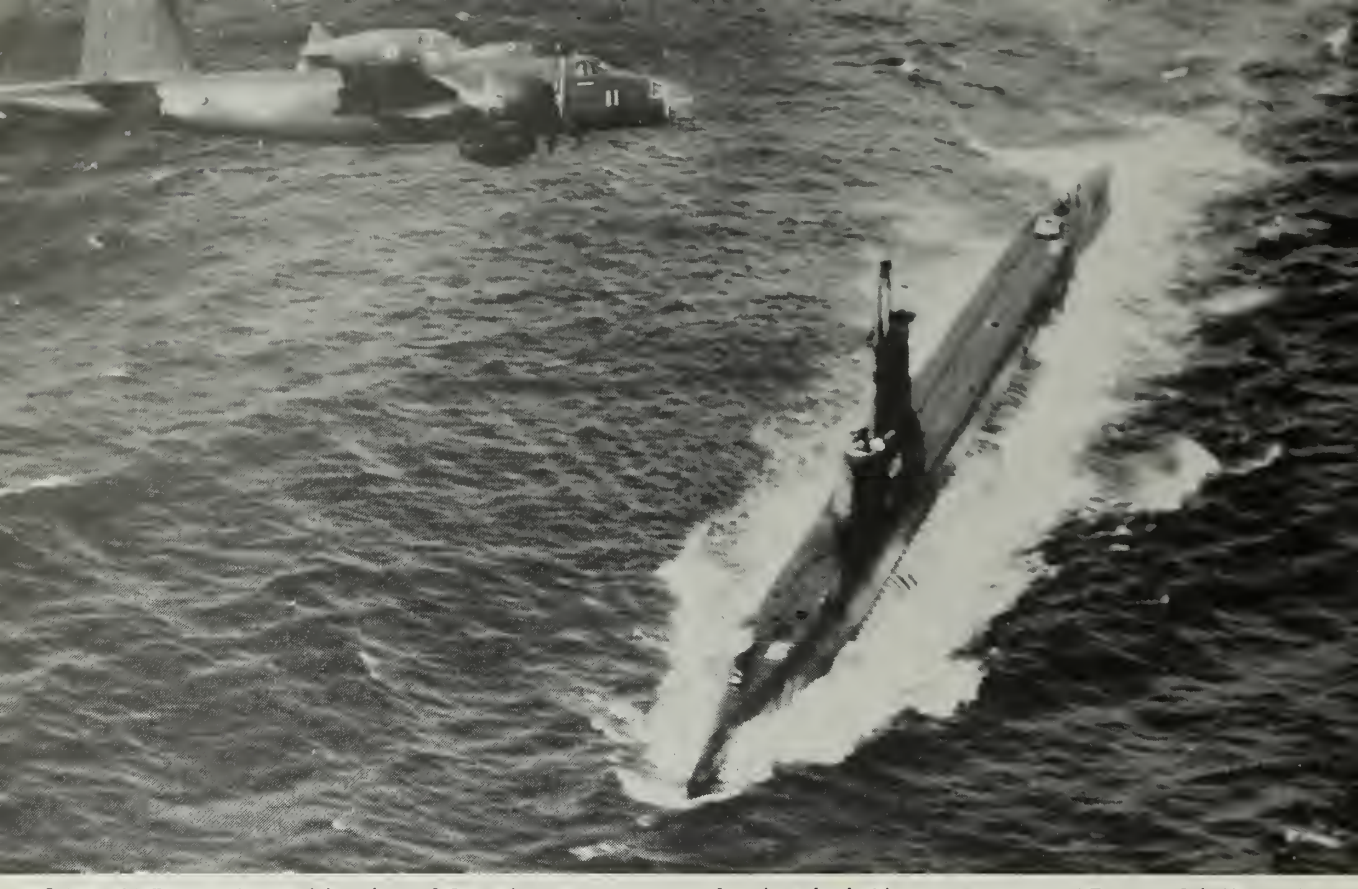
marine force to a Japanese orphanage which the submariners have been supporting since 1953. Each of the others tells how a Navyman, or a group of Navymen, have exercised their citizenship duties by fostering goodwill within world society.

One final incident furnishes an excellent example of what the Navy's broad program of citizenship training can accomplish, and how widespread the effects can be. Recently the president of a Dallas, Tex., newspaper was in Edinburgh, Scotland, while USS *Wisconsin* (BB 64) was in port. He noticed in one of the Scottish newspapers an editorial commending the conduct of "*Whiskey*" men — and was so impressed that the editorial was reprinted in his Dallas paper, along with some comments.

The Scots' editorial begins "All the nice girls love a sailor . . ." and adds that "warships are built for war, but in their peacetime cruises, the men who man them can lay foundations of peace." The Edinburgh paper adds that these "foundations rest on the behavior of individuals, and it must have been a real satisfaction to the Senior Magistrate of Edinburgh to report that not one unfavorable report had been received on the behavior of an American sailor during *Wisconsin's* visit."

The Dallas editorial writer made the following comment: "A welcome tribute, friend editor. It is from the heart to the heart. Were the conduct applauded, the bit of generosity recognized, exceptional? We who know our own folk do not think so. Young, and not so young, Americans far from home simply reacted to their home standards and touched off that spark of nature that makes the whole world kin."

And mind you, they were writing about you — the Navyman. What they wrote has been said before in dozens of languages around the world, but it still sounds pretty good. —Barney Baugh, JO1, USN



SUB SIGHTED and patrol bomber of Squadron 18 swoops in for close look. This time it was *USS Trumpetfish* (SS 425).

Watch on the Brine

IT WAS 3 A.M. and things were "dead" in the communication center in Fleet Air Wing Eleven headquarters at NAS Jacksonville.

The watch supervisor tilted back in his swivel chair, all set to enjoy a second cup of joe.

Suddenly the teletype clanged four warnings bells, then began to click out a message.

"OPERATIONAL PRIORITY—UNIDENTIFIED SUBMARINE X LATITUDE 27 DEGREES, 51 MINUTES NORTH, LONGITUDE 75 DEGREES, 32 MINUTES WEST X HEADING NORTHWEST 12 KNOTS."

The teleman ran from the "com shack," roused the Wing duty officer, and handed him the dispatch which had come from ComCarSeaFron.

The anti-submarine ready crew was alerted immediately.

Shortly afterward a P2V-5 *Neptune* patrol bomber was airborne, climbing out over the Florida coast in search of the intruder.

Fortunately, the "unidentified sub" was one of our own. On a routine run out of Key West, Fla., it had veered—because of rough weather—slightly off its plotted course.

Today the submarine looms more than ever as a potent threat. The atomic-powered USS *Nautilus* illustrates the possibilities of the strength of an undersea force.

Small speedy enemy raiders conceivably could sneak into U.S. coastal waters near American cities and drop off saboteurs and spies, or block harbors and demolish ships with atomic weapons.

Success in hunting submarines hinges on two factors: electronics equipment, and the crews that operate it. With such devices as radar, countermeasures equipment, listening buoys and magnetic detection equipment scanning, it takes a wily submarine to roam undetected for long.

Navy's Patrol Planes Keep Safety Check Over Ocean To Stalk Unidentified Subs

Patrol squadrons equipped with the latest in electronic devices, stand ready to hunt and identify mysterious subs heading toward our shores.

Here's how a typical pre-dawn hunt progresses:

After the submarine alarm is sounded, the "ASW alert crew" assembles and prepares for over-water flight. Pilots and electronicsmen get briefed.

The patrol plane commander, who is also the pilot, must exercise all the responsibilities of the surface ship commander. The remainder of the 10-man crew warm up the engines and check flares, rockets, special anti-submarine weapons, and emergency and survival gear.

Intensive preparations must be compressed into minutes. Still the men who fly the aircraft minutely inspect their engines, instruments and controls.

The safety check is priceless insurance. The plane might be up for half a day, and 300 miles out over the

ocean there'll be no stopping on the skyway to fix a faulty engine.

Supporting activities, in the meantime, prepare flight rations, dispatch taxi signalmen, and notify "base radio" of the plane's departure.

While most of the town's citizens are still sleeping, the P2V-5 climbs up off the runway heading out to sea.

Once over the water the crew and pilots concentrate on finding the sub. The electronicsman works on his dials and scopes, scanning the sea ahead with sensitive detection equipment.

Despite the electronic eyes visual observation is still necessary—but difficult. Staring mile after mile on restless, formless water from the plexiglass nose tires the eyes. In addition the sea watchers have to learn to recognize their target—whales, destroyers, oil slicks, sunken ships, even shoals and reefs are often mistaken for subs when seen from the air.

Every hour that the P2V-5 is away from its home at Jacksonville, the radioman sends a message to ComFairWing 11 Headquarters, telling the plane's position and progress being made in finding the sub.

If the sub is spotted and identified as friendly, the pilot banks his P2V-5 and scoots home, his job done. If the sub were a potential enemy, it would be photographed and watched, and Navy defense forces would take over.

Most hunts are long and tedious. But they are necessary to the security of our nation.

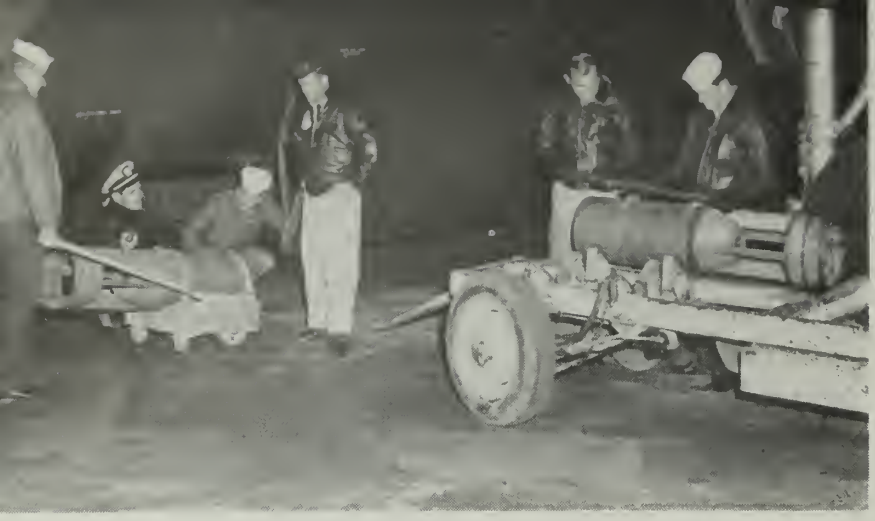
Take the case of the Caribbean and South Atlantic sub watchers. Sharing the task of stalking submarines are seven patrol and three service squadrons which make up FairWing 11. These include approximately 400 officers, more than 2000 enlisted men, and some 100 patrol bombers.

Strategically located, these squadrons and other Navy defense activities make it easy to pounce on any stranger in the great expanse of the South Atlantic and Caribbean.

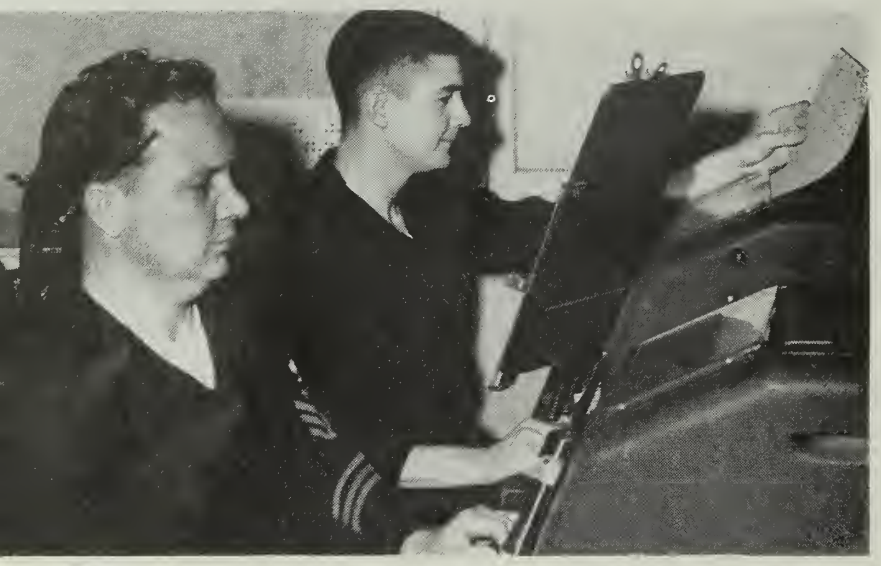
Although not primarily subhunters, the famous "Hurricane Hunters" of

FRONT SEAT for enemy submarine scanning allows the observer all-around vision through plastic glass 'bubble' in nose of P2V-5 *Neptune* patrol bomber.

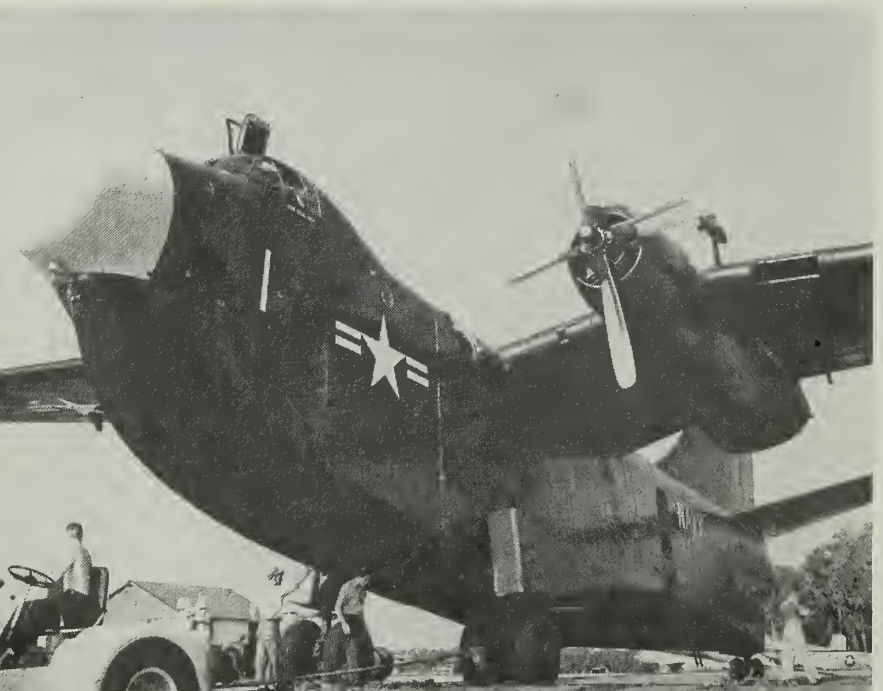
MYSTERY SUB'S LOCATION is pointed out on chart to pilot, navigator and electronicsman by operational officer.



ORDNANCEMEN of Patrol Squadron 3 load Mark 54 depth charge in bomb bay of patrol plane. Charge will 'kill' sub lurking within area of explosion.



ACTION STARTS with telemen in 'com shack' who receive the message. *Below: P5M Marlin* seaplane is towed to ramp for take-off at Coco Solo, Canal Zone.



Airborne Early Warning Squadron Four (VW-4) round out the Wing complement.

FairWing 11 squadrons fly a variety of multi-engine bombers designed especially for ferreting out submarines. In addition to the P2V-5 *Neptune* land bomber, there are WV1 *Constellation* radar pickets (lookout planes), PBM *Mariner* and P5M *Marlin* seaplanes, and UF-1 *Albatross* amphibians.

The sub watchers patrol an area far out into the Atlantic and into the Gulf of Mexico. (The same kind of watch is observed in the Pacific.)

Over the tremendous expanse of ocean that is its responsibility, FairWing 11 performs another mission in addition to anti-sub warfare. It helps the Coast Guard search for and rescue persons in distress on ships, small boats and downed planes (see page 15).

To keep the sub hunting units groomed for a genuine enemy, ComFairWing 11 conducts at least one training exercise each month off Florida. In these mock skirmishes American submarines behave like the enemy and operate out of bases at Key West, Charleston, Norfolk or New London.

During maneuvers a few seasons back, FairWing 11 teamed with the U. S. Air Force, the Royal Canadian Air Force, ships of allied nations, and AirLant, DesLant, HukLant, MinLant and SubLant of our own Fleet.

FairWing 11 was born at San Juan, Puerto Rico, in August 1942 at the height of the German U-boat sinkings. Because of Jacksonville's central location and the excellent facilities at NAS, headquarters were moved to Florida in January 1950.

FairWing 11 is one of several units in the Nation's defense networks, which is aimed to keep out unwelcome visitors traveling on, over or under the water. (Other Navy units that play a role in this gigantic task will be covered in future issues of ALL HANDS.)

Hanging on the bulkhead near the Fair Wing 11 duty office is a placard bearing the motto: "Let's Be A Can Do Outfit."

During World War II, the Wing converted these words into action by sinking 10 German U-boats and damaging 18 others. Its pilots and aircraft conducted a total of 18,305 searches throughout the Atlantic, an almost unbelievable average of 16 a day.

—A. Douglas Lyke, JO3, USN.

RESCUE COMES TO FISHERMEN off New Jersey coast as USCGC *Gentia* (WAGL 290) battles fire engulfing their ship.

Navy's Sister Service —

Coast Guard to the Rescue!

THE SEA IS FULL of fish but the Coast Guard "fishermen" you see here are interested in larger and more important quarry. They are constantly checking the ocean's surface for ships and aircraft, large and small, that have run into trouble and need help.

During the last year's boating season, May through September—when rescue operations were at their peak—3162 rescues were effected in the Coast Guard's Eastern Area Command.

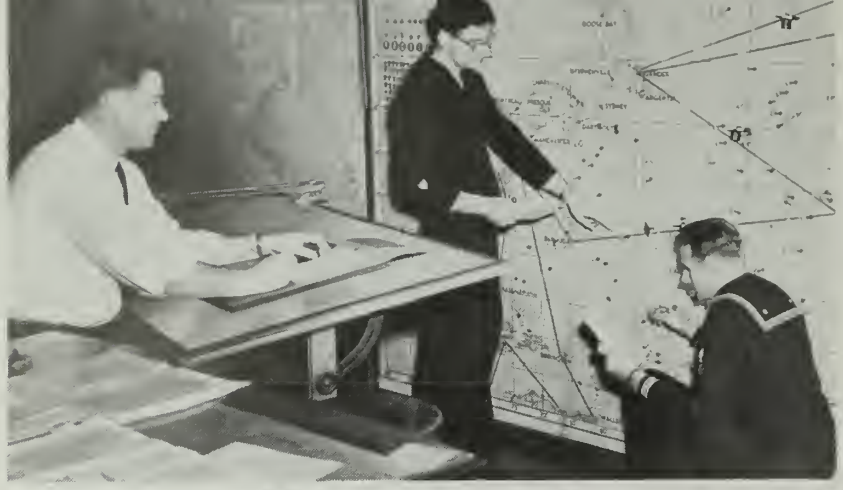
The heart of these rescue operations is the Eastern Area Coast Guard Rescue Coordination Center covering the Atlantic around the clock from its New York City headquarters. From this center go fingers of radio, teletype, and telephone communications to military and defense installations along the entire eastern and gulf coasts of the United States as well as the Caribbean areas. This system, working with the help of Navy and merchant ships, forms an invisible safety net for men at sea or in the air above.

Activity at the rescue headquarters centers around the ship's plot, a large scale 10-by-20-foot magnetic wall chart. Here Coast Guardsmen record the position and mark the passage of various strategically located merchant vessels as they cross the ocean or make their way along coastal routes of North and Central America.

Many merchant ships send in weather information and their position to the Weather Bureau and Coast Guard every six hours while at sea. Using this information and data from a card index containing important statistics on over 2800 merchant ships it is possible to keep the whereabouts, speed, and course of a vessel with reasonable accuracy. The individual ship's plot cards contain such facts as ship's agent, nationality, radio call sign, speed, tonnage, and whether a radio watch is maintained and a doctor is aboard. If a call for help comes in, the plot board is immediately checked to see what ships are in that area where the emergency is arising and the facts from the card index indicate the amount of aid such ships could be expected to give.

This is just the first step in a fast-paced series of actions that will bring survivors to safety. If the distress is from a plane still airborne, Rescue Control alerts and dispatches necessary Coast Guard search and rescue, air and surface craft and the appropriate Ocean Station cutter to

CUTTERS ON patrol like USCGC *Cook Inlet* (WAVP 384) cruise their assigned areas ready to give assistance.



NEAREST SHIP to distressed plane is quickly located by Coast Guardsmen on ship's plot board while statistics are checked from ship's index card.

intercept it. They also alert and request services of the Navy, Air Force, Army and commercial airplanes and ships as required and available. The Center passes the word to all search and rescue craft, CG radio stations, Federal Communications Commissions, Navy High Frequency Direction Finder Stations, and Air Force radar stations.

If ditching should occur the ditching plane is provided with the latest oceanographic forecast and the search is coordinated by assigning search areas to participating units while maintaining a plot of areas searched.

Other large charts flank the ship's plot board. A magnetic board similar to that for ships shows the many coastal and ocean air routes. It is used to plot the course of distressed planes as well as those coming to the rescue. Two large status boards give at a glance the status and facts of Coast Guard vessels in the area and on patrol in their ocean stations.

Life blood of the Rescue Coordination Center is a bank of 18 teletypes comprising a network linking together all units and organizations concerned with rescue work. These with radio and telephone pass the word quickly when an emergency arises. They also keep the center and components posted on the weather.

Here is a play-by-play account of a rescue that is typical of the many effected each year.

1947Z – Kindley Air Force Base, Bermuda, receives call by voice radio from a plane heading in from the Azores, bucking head winds and running low on fuel, and requesting an immediate intercept. Bermuda declares an emergency, notifies CG Air Detachment in Bermuda who relays message to OCA (WSY) New York, who passes the word by phone to the Eastern Area Rescue Coordination Center. They quickly determine that the plane was one hour from the Coast Guard cutter patrolling Ocean Station ECHO at 35°N, 48°W. Messages exchanged while passing over indicated no trouble.

2000Z – A PBM from CG Air at Bermuda, airborne on a routine patrol is notified and ordered along with a Coast Guard cutter patrolling Bermuda area to proceed immediately and assist.

2003Z – Commander of Coast Guard Eastern Area releases emergency message to Coast Guard in Bermuda, Ocean Station ECHO, and Commander of 5th Coast Guard District.

2011Z – Center alerts Navy and requests monitor and bearing on the last frequency troubled plane was using. Same request is passed to Coast Guard Headquarters in Washington, D. C., for relay to FCC HF/DF Net.

2014Z – Navy HF/DF Network at Richmond, Fla., is alerted.

2016Z – Coast Guard radio stations at Jacksonville, St. Petersburg,

HEADQUARTERS for rescue is in New York City where radio, teletype, and telephone set up protective net.

Norfolk, and New York are directed to monitor plane's frequency.

2018Z — Second CG plane airborne from Bermuda to intercept distressed plane.

2019Z — Ocean Station ECHO cutter is advised of frequencies being used by distressed plane.

2022Z — Air detachment in Bermuda requests Center to check ship's plot for surface vessels in distressed plane's area. Word is received that plane has lost altitude from 8000 to 6500 feet.

2030Z — Pilot of distressed plane advises Bermuda he is returning to Ocean Station ECHO.

2033Z — OS ECHO receives MAYDAY on 3023.5 kcs voice from plane.

2034Z — Third Coast Guard plane departs from Bermuda to assist.

2042Z — Rescue Center releases emergency message to initiate emergency broadcast on 500 kcs, preceded by auto alarm, stating the plane is expected to ditch at OS ECHO.

2045Z — Cutter at OS ECHO and distressed plane make voice radio contact while 115 miles apart.

2058Z — Distressed plane picks up OS ECHO's radio beacon and announces homing range 80-85 miles.

2100Z — CG cutter at ECHO notifies center that it is proceeding on intercept course toward plane, working it on 3023.5 kcs.

2105Z — Center notifies CG Air Detachment, Beruma, that SS *Pearl Island* (radio call HOZJ) is only surface ship in area of emergency.

2117Z — Rescue Center originates a special 24-hour meteorogical forecast for OS ECHO.

2121Z — ECHO establishes radar contact with plane at 28 miles.

2137Z — Cutter on ECHO starts laying down lighted sea lane markers.

2140Z — ECHO advises Center that plane will ditch in grid OJ of Station ECHO. Cutter advises aircraft of surface conditions and by use of radar, positions the plane and starts to talk it down for ditching alongside.

2201Z — Plane starts ditching run.

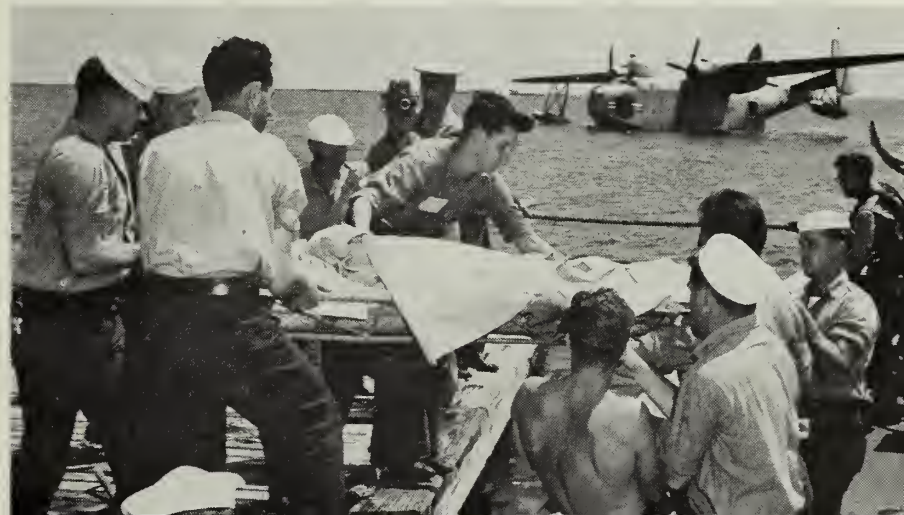
2203Z — CG cutter starts night illumination with high-altitude flares.

2205Z — Disabled plane ditches in water 1000 yards from cutter.

2219Z — All plane personnel safe aboard CG cutter's motor surfboat. Returning to station.

DURING BOATING SEASON rescue work by the Coast Guard reaches its highest peak. Here, stranded yachtsman is being taken in tow by a picket boat.

WEATHER BRIEFING — CAPT. S. A. Olsen, USCG, checks report from Ocean Station. *Below:* Stricken seaman reaches safety after rescue by *Mariner*, PBM-5G.



HAVE TO BE PERFECT to win these. *Left to rt:* softball and baseball, hole-in-one, and bowling trophies.

Navy Aces Fill Their Trophy Cases

HOLE-IN-ONE CHAMPIONS of the United States" is a title that the Navy could claim if there were such a thing. The Navy would base its claim on 72 reasons: 72 trophies the Chief of Naval Personnel has awarded the Navymen scoring a hole-in-one during the past 12 months.

The Hole-in-One trophy is one of four special trophies awarded by the Chief of Naval Personnel for unusual athletic achievement. Trophies are also awarded to Navymen pitching a perfect game in softball, a no-hit, no-run game in baseball and a 300-game in bowling.

The Athletic Achievement Award came into effect on 1 Oct 1954. These awards are intended to further the interest in the Navy Sports Program and to recognize officially the man performing such an outstanding athletic feat.

When the Athletic Achievement trophy was established, it was expected that maybe some two dozen trophies would be won each year. Much to the surprise of the Bureau of Naval Personnel's Special Services Branch, the supply could barely meet the demand.

• Some 70 Navymen have applied for and received trophies for scoring a hole in one.

• Four men received similar Athletic Achievement trophies for pitching perfect games in softball.

To date, no requests have been received for trophies for pitching no-hit, no-run baseball game or for rolling a perfect 300 in tenpins. However, one near-perfect game in bowling was rolled recently by Robert W. Miller, YNC, USN, of the Detroit, Mich., Recruiting Office. But the chief was one pin short of a perfect game. Here's the story:

Miller was bowling with the Recruiters in the Detroit Recreation League in a game against the U.S. Customs. Rolling a 236 score in the first game, Miller came back in the second game to bowl eleven consecutive strikes. Then, on his 12th try, the ball crossed over to the Brooklyn side of the pins and knocked down only nine pins. Miller finished up the set with a "low" 180 game. Adding to the irony of the situation was the fact that the Recruiters lost all four points in the match. In the game where Miller bowled his almost perfect game, the Recruiters lost 1036 to 1037. The Recruiters even lost the point for total pins, despite Miller's 715 series.

Many "near misses" are scored on the golf links, but during the past 15 months, 72 Navymen have been able to combine skill and lots of luck to score a hole-in-one.

The longest hole-in-one by a Navyman since the establishment of the award was made by James A. Fry, QMC, USN, of NTC Great Lakes, Ill. Fry was playing on the station links and holed out a 230-yard tee shot.

At the other extreme, the shortest hole-in-one scored was 80 yards, made by LCDR John F. Hanlon, USN. He was playing at the Presidio Hills Golf Club in San Diego and used a nine iron to score his ace on the 12th hole. The ball went directly into the cup on the fly, he reported, hitting the pin about an inch or two above the level of the green and dropping into the cup.

Here are a few other reports of holes-in-one scored by Navymen:

• CAPT A. S. McDill, USN, of the staff of the Commander, Western Sea Frontier, submitted his application for his hole-in-one trophy in the form of a courtmartial:

CHARGE
Hole-in-One
SPECIFICATION

It is hereby attested that Captain Alexander S. McDill, USN, in the presence af the undersigned camplaining witnesses did, an 22 Jan 1955, at about 1055, Pacific Standard Time, an the 6th tee af the Presidia Golf Club, willfully, and with premeditation, strike a golf ball with a deadly weapon, to wit, a number six iron; and that as a consequence, said ball, sa prajected and propelled, landed an the 6th green of afaresaid Galf Club and rolled unimpeded or atherwise assisted into the cup of said green in a manner greatly to be desired, but constituting a lamentable disturbance to the peace and gaod order of a properly organized four-ball match, lawfully proceeding in accordance with the rules of the United States Galf Assaciation.

The "charges" were signed by RADM C. A. Trexel (CEC), USN (ret.); CAPT J. E. Chapman, USN (ret.); and CAPT R. A. Keating, USN.

The endarsement on the "charges" was written by the club pra, and read: "I, Bill Naulty, Prafessional Counsellor and Senior Sympathizer at the Presidia Golf Club, certify that I am personally acquainted with the above witnesses and have reason ta believe there exists a basis in fact far their abave specified charge in that Captain McDill is sometimes knawn actually ta strike a golf ball."

• George W. Mayne, AM1, USN, has been playing golf only two years, yet he already has two holes-in-one to his credit. Both his aces have come while playing the course at the Naval Proving Grounds, Dahlgren, Va. His first ace came on the 141-yard 11th hole using a nine iron.

Witnesses were CDR L. C. Klingaman, USN; LT D. A. Dahlman, USN; and R. M. Brierly, ADC (AP) USN.

Mayne's second hole-in-one came three months later on the 125-yard second hole. Witnesses to his second ace were J. W. Shearin, ADC (AP), USN; D. C. Miller, GMC, USN; and H. C. Martin, ADC, USN.

• Merrill D. Greenia, DTC, USN, of NTC Bainbridge, Md., reported his hole-in-one effort as follows: "On 20 Apr 1955, while playing in a foursome consisting of George M. Krakosky, ADC, USN, William W. Turton, YNSN, USN, and Harold E. Patton, PN1, USN, I hit an eight iron shot on the 130-yard par 3 sixth hole at the NTC Bainbridge golf course. It was a lofty, well hit ball, which headed directly for the pin. From the tee, we could not determine where the ball ricocheted, and I fully expected to find the ball in one of the sand traps. After our foursome had teed off, and walked up to the green, Patton, first to reach the hole, passed the cup and looked down but didn't indicate that the ball was in there. He waited for me to look in the cup and be severely shocked to see the ball. A hole in one on the fly! The hole in one was such an unnerving experience that on the three remaining par four holes, I scored seven, five, seven to wind up the nine holes with a 45, three strokes above my average."

• "I am astounded to be sending in my second request so quickly," wrote CAPT Benjamin N. Ahl (MC), USN, another to earn a second trophy. His first hole-in-one trophy hadn't been on the shelf long enough to gather dust when he went out and repeated his feat. CAPT Ahl made both his aces at the Charleston Naval Base golf course.

• Unlike CAPT Ahl, CDR W. W. Moore (CEC), USN, didn't score one ace and submit his request for a trophy, only to go out and make another hole-in-one. CDR Moore waited until he'd scored two holes-in-one and saved himself a lot of paperwork His first hole-in-one came on Thanksgiving Day 1954. He was playing with CAPT N. J. Dustrup (CEC), USN, his partner, and CAPT W. E. Linaweaver, USN, and CAPT J. E. Rice, USN.

The foursome was playing at the Fort Buchanan Golf Course in Balboa, Panama, C.Z. On the 150-yard 11th hole, CDR Moore used a seven iron to score his ace. Contributing to this performance, wrote CDR Moore, was the fact that "we were in danger of losing all three legs of a two-bit Nassau, thereby necessitating drastic measures."

CDR Moore's second ace came on 19 Mar 1955 while he was playing at the famous El Morro golf course in Panama. His partner was CDR W. F. Weaver (CEC), USN, and their opponents were CDR J. A. Leonard, USN, and CAPT J. A. Kerrins, USCG. On the 131-yard 12th hole, known as one of the moat holes, CDR Moore reported he "played an eight iron and the ball landed on top of the moat wall thence onto the green and into the cup."

It would be impractical to publish the texts of all the reports sent in, but here are the list of names of the Navymen who have received the "Athletic Achievement Award"

• Scoring a hole-in-one:

RADM Haward A. Yeager, USN
CWOHC James J. Olson, USN
CDR Robert O. Canada, Jr., USN
CAPT L. M. Stevens, Jr., USN
LT C. L. Crayne, USN
CDR K. K. Bridge (DC), USN
Robert Gaylar, ET2, USN
LT Rabert R. Nardane (MC), USN
CDR J. J. Hoblitzell, III, USN
Harald F. Braoks, RM1, USN
Richard G. Bate, HM2, USN
Lambert A. Wight, ADC, USN
Olin M. Rifenback, ENC, USN
CAPT A. S. McDill, USN
LCDR Walter H. Swinson, USN
LT Ralph Koantz, USN
LT Philip S. Harward, USN
Jahn M. Pegg, TE1, USN
LT A. L. Gaskins (MC), USN
George W. Mayne, AM1, USN
LTJG George J. Adams, Jr., USN
James L. Brewer, PN2, USN
LT Majar Lee Johnson, USN
CDR Leslie J. Carr, USN
CDR W. W. Maare (CEC), USN
William O. Craft, BM2, USN
Arthur Earl Steele, PN2, USN
ENS Charles C. Farrell, USNR
CDR A. M. Gill, USN
Merrill D. Greenia, DTC, USN
Marvin L. Mills, AT1, USN
James R. Saylor, AK3, USN
Angelo J. Spencer, AOC, USN
Garrett W. Swensen, HM3, USN
LCDR T. J. Taylar, USN
CDR Raymand J. Pflum, USN
Rabert J. Haran, PNC, USN
CAPT Benjamin N. Ahl (MC), USN
CDR Robert J. Watkins, USN
Walter P. Bayd, HMC, USN
CAPT J. Collings Landstreet, USN
Cleon T. Reed, CT1, USN
LT W. D. Craney (MC), USNR
G. F. Yaung, HM2, USN
CDR J. R. Dillon, USN
J. S. Swinka, HMC, USN
T. C. Gann, PN2, USN
D. Jahnsan, HN, USN
Danald L. Harkness, SN, USN
James D. Quackenbush, SA, USN
John L. O. Barker, GMC, USN
MSgt A. J. Alberada, USMC
MSgt Edward Roberts, USMC
CHCARP Albin E. Williams, USN
SGT William Lindgren, USMC
A. J. Barkley, DT3, USN
Charles Y. Norris, AD1, USN
John Julius Keimig, DKC, USN
David W. Martin, RMC, USN
Rabert W. Beard, DT2, USN
LT Herman G. Hache (MSC), USN
CDR Andrew A. Taylar (MSC), USN
LCDR Jahn J. Hanlon, USN
James J. Holets, MU3, USN
LT Lauis J. Juliana (DC), USNR
Billy E. Golden, HM2, USN
Richard J. Wentz, SK2, USN
Jahn J. Winkler, ENC, USN
CDR William H. Cross, USN
Duane R. Ankarberg, AK3, USN
CAPT A. J. Peterson, USN
James A. Fry, QMC, USN

• Men pitching perfect softball games are:

R. G. Trostel, YNSN, USN (two awards)
I. C. Green, BM2 USN (two awards)
Edward T. Valenzuela, AO1, USN
Benjamin Sokolawski, GM2, USN

TWO NO-HITTERS APIECE — Irv Green, BM2, and Ron Trostel, SN, pose with trophies. Dick Hodges, HM1, (center) holds ace ball and (right) M. D. Green, DTC, receives Hole-In-One award from his CO, CAPT R. P. Jones (DC).

SIDELINE STRATEGY

GOLF IS SUPPOSEDLY a summer sport but you couldn't prove it by Navy shotmakers. Despite all weather elements, sea-service golfers can be found on courses throughout the world the year around. The accompanying story on Navy "Hole-in-One" champions is proof of this fact.

Speaking of golf reminds us of the story that came out of last year's All-Navy golf tournament held at NATC Patuxent River, Md. It was reported that the golfers playing in the All-Navy tourney were quite upset about the number of birdies around Patuxent's Cedar Point Golf Course. Not the birdies that make good scores, but big birdies — crows, to be exact.

Seems that a number of golfers were forced to add penalty strokes for losing their ball. And the crows in question, known to like the elusive white pellets, were charged with thievery by the irate golfers.

In fact, Dick Diversi, AK3, USN, of NAS Brunswick, Me., testified that he actually witnessed the theft of his ball by one of the black birds. It cost him some penalty strokes on the round in which he set a new course record of 68 while playing in the Eastern Navy tourney.

The situation reached a climax on the second day of the All-Navy when the Cedar Point golf pro took matters into his own hands. Early in the morning, he went out on the course and shotgunned one of the pesky crows. The big black bird was posted on the first tee to serve as a warning to other crows with ball-stealing tendencies. The dead bird also appeared to lift the spirits of the shotmakers.

★ ★ ★

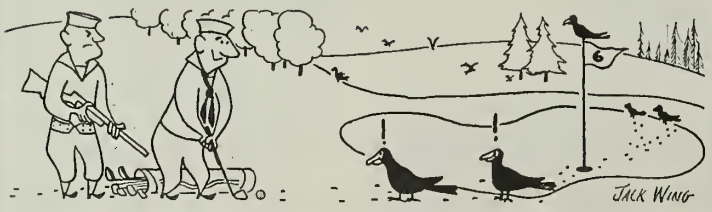
The sight on the first tee must have really lifted the spirits of Lieutenant Commander Jim Kinder, MSC, USN. On this second day of the tourney, he went out and set a new course record with a sizzling six-under-par 66. The old record for the 6564-yard layout was 68, set a week before by Diversi.

The 44-year-old Kinder, built on the lines of Ben Hogan, began tearing apart the par-72 Cedar Point course on the first hole. A birdie 4 on the 510-yard first hole set the pace for the Navy's top shotmaker. At the end of nine holes, the methodical Kinder had a four under par 32. The back nine proved only two strokes tougher as Kinder came in with a 34. His record six-under score included 12 pars and six birdies.

★ ★ ★

Allan C. Bell, RDSN, USN, of USS *Wasp* (CVA 18), appears to be a good Navy prospect for the U. S. Olympic cycling team. Bell recently won third place in the National Bicycle Championship of America. He was the only one of the five servicemen entered to place.

—Rudy C. Garcia, JOC, USN.



On the Fairways

Golf is no longer a strictly summer sport. Not, that is, if you're a Navyman lucky enough to be stationed in the Far West or South during the winter.

Down Florida way, Green Cove Springs Naval Station recently commissioned a nine-hole golf course. J. P. Stutz, FPC, USN, of the Florida Group, Atlantic Reserve Fleet, had the honor of teeing off the first ball. Chief Stutz was supervisor in the construction of the course.

The tricky nine-hole layout, which covers 90 acres, was put to immediate use after the dedication ceremonies as composite teams from Green Cove Springs and NAS Jacksonville paired off.

Out in the West, Camp Pendleton's Jim Cassia won the 1955 championship of the Camp Pendleton Marine Memorial Golf Club. Cassia used his booming drives to defeat Navy Hospital Corpsman Tony Amend 5 and 4 in the 36 hole playoff match.

At the end of the first 18, Cassia had a margin of two up. The afternoon round found Amend, a member of the First Marine Division's Medical Battalion, dropping the first four holes to go six down. Amend shaved the deficit to 5 down with nine hole to play but the margin was too great. The match ended on the 185-yard 14th hole as each came in with par 3s to halve the hole but giving the victory to The Marine Corps' Cassia 5 and 4.

Did you know that the golf term "bogey" was the first international term used in golf and generally was known as "Colonel Bogey." It is said to have come into use in 1890 when shooting par was not an anticipated thing. Bogey meant a score higher than par, the higher score being one which it was felt the ordinary golfer should make, or eclipse. If for instance, par was 72, bogey might be fixed at 75, 78 or 80.

As accuracy in the game increased, and the players shot much better than any score named in bogey, with some equaling par, and other cracking par, the term bogey lost its original meaning. The skill of a player, thereafter, came to be measured by how close he could come to par.

To present day golfers, at least in the amateur class, a bogey isn't too bad, since it represents holing out only one stroke over par for the hole.

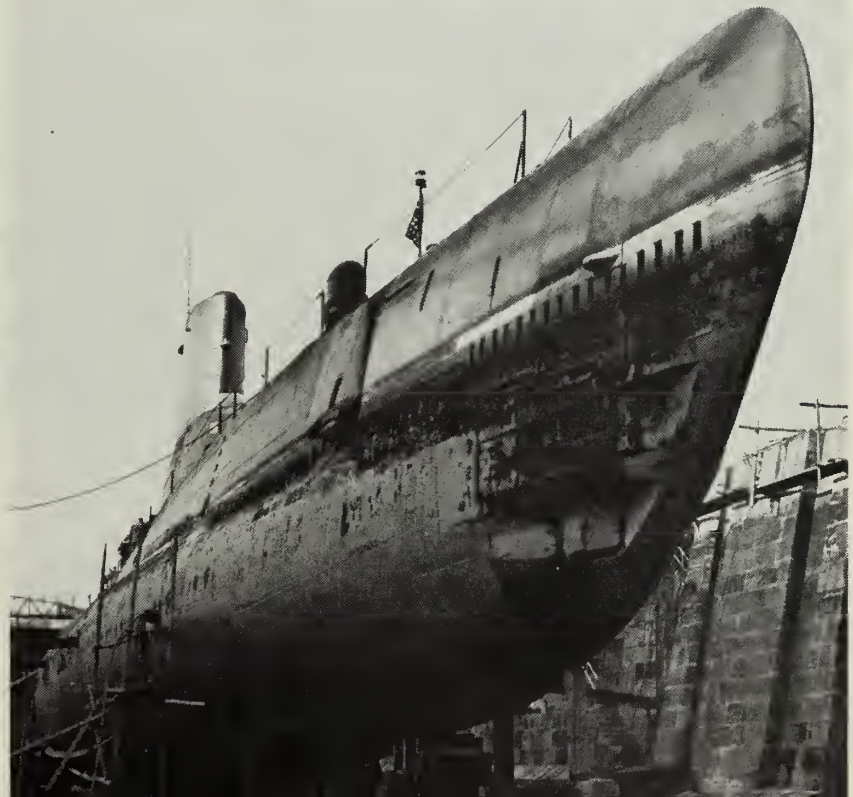
1000 High and Dry

Usually the dry-docking of a ship is a routine event but this was not so when USS *Pomfret* (SS 391) was eased into position in front of dock Number Two, Ships Repair Facility, U.S. Fleet Activities, Yokosuka, Japan.

Colorful ceremonial wreaths and a large banner decorated this graving dock as spectators crowded the area to witness the event. It was the command's 1000th dry-docking in its 10-year history. This record resulted from the large number of U.S. and U.N. ships in the Far East during the last five years.

Before this period the greatest number of ships docked in a year had been 35 in 1949 to a high of 191 in 1951.

Top left: Flood valves are opened to fill dock. *Top right:* Measured-to-fit-blocks are placed in position. *Right:* Sub is steadied over blocks as water is pumped out. *Bottom left: Pomfret* is eased into position. *Bottom right:* Operation completed and sub is high and dry.



Brief news items about other branches of theh armed services.

★ ★ ★

ONE OF THE WORLD'S FASTEST photo-reconnaissance airplanes has been delivered to the U. S. Air Force. The first craft—a prototype RF-101 *Voodoo*—is already undergoing high-altitude photographic tests at Lambert Field in St. Louis, Mo., and the second is in early flight stages.

Development of the RF-101 will, for the first time in military history, enable Air Force operational units to carry out supersonic photo-reconnaissance missions as a routine flight procedure.

A modification of the F-101A *Voodoo*, which is already the longest range supersonic fighter, the new craft is equipped for in-flight refueling, further extending its operational radius of action.

A combination view finder provides the pilot with a clear view of the terrain below and ahead of the airplane. Using cockpit controls, the pilot can operate the entire camera system while in flight. After the basic instructions are "set" into the system, the photo procedure becomes completely automatic.

The photo-reconnaissance *Voodoo* closely resembles its fighter counterpart. Slightly lighter in weight than the fighter, the RF-101A has the same performance characteristics. The two J-57 turbojet engines develop a total of approximately 20,000 pounds of thrust, without afterburners, to make it the most powerful airplane of its type in the world.

★ ★ ★

THE FIRST INSTALLMENT of a comprehensive manual on uniform storage and materials-handling methods and procedures for the military services is now being distributed.

The new publication, *Storage and Materials Handling Manual*, is being jointly developed by the military services. The initial installment covers the storage of lumber, unit loads, and on-the-job training for operators of materials-handling equipment.

Other sections of the *Manual* are in preparation and will be completed within the near future.

THUNDERBIRDS, the official USAF demonstration team, sweep the sky in red, white & blue F-84F *Thunderstreaks*.

DEFENDING FOURSOME of Air Defense Command — *Center;* RC-121D radar picket *Top left;* F-94 fighter, *Lower left;* F-86D fighter, *Lower rt;* F-89D with 104 rockets.

A SMALL CAMERA-CARRYING DRONE, controlled by radio, has been added to the weapons of combat aerial photography by the Army Signal Corps.

Although it has a wing span of only 12 feet, the drone can fly 228 miles per hour and climb at a rate of 3060 feet per minute. The take-off is jet-assisted. However it is propeller driven by a gasoline motor while in the air. Over-all length of the drone is 12 feet.

The drone can take either still photographs or motion pictures from a low-altitude range of several hundred feet up to heights of more than four miles in the air. Through its use, taetical commanders can be supplied with aerial surveillance photographs in less than an hour's time.

The drone can operate in any area because it is jetted from a launching catapult, thus eliminating the need for an airfield. Another distinct advantage is that the drone will operate in all kinds of weather without risk to personnel.

The proper name of the drone is the RP-71. It is a radio-controlled aerial target plane which was instrumented by the Army Electronic Proving Ground for camera-carrying duty.

A control operator on the ground guides the craft on its mission and returns it to the launching area. The engine is stopped and the parachute which brings the drone to the ground is opened. Upon landing, the films are picked up for immediate processing.

★ ★ ★

AS THE RESULT of an eight-year study, the Air Force has practically concluded that there is no such thing as a so-called flying saucer.

It said, however, that it might soon have a disc-shaped aircraft "somewhat similar to the popular concept of a flying saucer."

An investigation of more than 5000 sightings of unidentified aerial objects since mid-1947 has produced no evidence of the existence of flying saucers, according to the study.

Of the sightings reported in the first four months of this year, the Air Force said 26 per cent were evaluated as balloons, 21 per cent as aricraft, 23 per cent astronomical, 20 per cent other, 7 per cent insufficient information and 3 per cent of the sightings unknown.

Applications from college students at present enrolled in Air Force Reserve Officers Training Corps units being disestablished, and who desire to join the Naval Reserve Officers Training Corps are now being accepted.

Applicants who meet the qualifications will be accepted as contract students in the Naval ROTC program. There are Naval ROTC units at five colleges where Air Force ROTC units are being diestablished. These are; Columbia, Harvard, Northwestern, Rochester, and Tufts.

Only those Air Force students who are in the first two years of study in an Air Force unit being disestablished will be eligible for consideration.

★ ★ ★

Joint use of all existing medical and dental facilities, including clinical laboratories, has been ordered by the Department of Defense. However, the facilities will continue to be manned by personnel from the respective services. The move is being made to provide better and less expensive medical care for servicemen.

Hospitalization of military patients will be made at the nearest medical facility capable of providing proper care, regardless of the individual's service affiliation.

The Army, Navy and Air Force secretaries have been told to place the new policy into operation immediately and to assure maximum tri-service coordination.

Other key provisions of the order include:

- Expansion of the use of specially trained personnel, particularly Medical and Dental Corps Reservists to conduct physical examinations for Reserve units.
- Joint planning of requirements for new medical construction.
- Joint studies of preventive health and medicine policies.
- Free exchange of organized training programs in an attempt to standardize training courses.

★ ★ ★

The Air Force is in the process of installing anticollision light systems on all of its cargo and transport type aircraft. These lights are intended to provide better sighting of aircraft in flight and thereby reduce the possibility of collision. The Civil Aeronautics Administration has ordered the anticollision lights installed on all commercial aircraft of 12,500 pounds and over that are engaged in interstate commerce.

'HONEST JOHN' the Army's free flight rocket that gives the Infantry high powered support, rests in launcher.

PINT-SIZED REPEATER spliced into phone line at six-mile intervals lets the combat soldier talk over 30 miles.

The lights are being installed on several hundred Air Force planes in such a position that they may be seen from a 360-degree angle around the line of flight of the aircraft. In some cases more than one light per plane is necessary to cover the area of distribution.

★ ★ ★

A wave testing machine, believed to be the largest in the world, is helping the Beach Erosion Board of the Army's Corps of Engineers in devising possible methods of protecting coastal areas from hurricane damage.

Waves are created by the machine in a concrete wave tank which is 635 feet long, 15 feet wide and 20 feet deep. A wave generating mechanism, including a vertical bulkhead 20 feet high which is pushed back and forth by two large crank arms, will produce waves six feet high midway along the tank, with a breaking height of seven feet at the beach end of the tank. These are believed to be the largest waves ever generated in a laboratory wave channel. The largest waves previously generated in this manner have been about two feet high.

The new facility will permit large scale tests of wave forces and wave effects, including those of hurricane proportions. It will provide basic data for application to coastal and inland engineering problems with a degree of accuracy not obtained before this time, making possible a substantial savings in the construction costs of structures subject to wave forces.

★ ★ ★

Plans for a television installation for the U.S. armed forces in the Canal Zone in the spring of 1956 have been announced by the Army.

The plan is part of the Department of Defense worldwide program to provide overseas U.S. armed forces installations with the latest communications equipment for tactical, training, moral, information and educational activities.

It is anticipated that installation of equipment will start the first part of February.

FROM ARCTIC gales (above) to tropic typhoons (below) Navy ships are challenged by the angry seas.

Clear All Weather Decks

ANY PLACE YOU GO, one of the favorite topics of conversation is the weather. So it is with Navymen when they are relaxing in off-duty hours, either on board ship or ashore.

Winds ripping across the wide expanses of ocean water turn a placid beauty into a foaming monster that is a challenge to the best of seamanship. Among whitehats who have ridden out the briny bronco, weather talk is most likely to center around how high the waves were and what degree of roll their ship took.

At this point ALL HANDS would like to break into the discussion with this group of pictures, taken from our weather file. The saltiest of sea legs and windiest of yarns stem from weather as shown here.

HEAVY CRUISERS as well as lighter ships are subject to record rolls when meeting mighty waves like these.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Change to Another Type Ship

SIR: I still have 20 months to do before I ship over and I would like to know if I could get shore duty in Spain. Are there any FN billets over there? If not, my second choice is Japan. I have just completed two years in a destroyer with DesLant and if there are no billets open in Spain or Japan I would like to get a tour of duty aboard another type ship. How do I go about requesting such a change?—V.G.B., FN, USN.

• *There are no billets for FN in any of the activities in Spain or Japan that are controlled by the Chief of Naval Personnel. To transfer to another vessel in the Atlantic Fleet it is suggested that you submit a request to Commander Service Force, U. S. Atlantic Fleet via your commanding officer. If your request is for another vessel in your type command, it should be submitted to Commander Destroyer Force, U. S. Atlantic Fleet, via your C.O.*—ED.

Quarterly Marks in Conduct

SIR: Over the years I have observed that it has been general practice in the Navy to assign a man 4.0 in conduct, when assigning quarterly marks, unless he has had disciplinary action taken against him during the period for which the marks are being assigned.

However, recently it has come to my attention that a few commands believe there are numerous instances in which a man's conduct does not warrant a mast but should result in a quarterly conduct mark of less than 4.0. They lower the mark and quote either paragraph 1 of Article C-7821 of *BuPers Manual* or paragraph 7(e)(2) of the same article as authority. Is this considered proper practice?—R. R. H., LCDR, USN.

• *It is proper procedure—with one stipulation. Any time a man's conduct marks are lowered without disciplinary action a service record entry setting forth the reasons such action is taken is required. Since the contents of paragraph 7(e)2 of Article C-7821 are not clear enough on this subject an upcoming change to "BuPers Manual" will make it plainer.*—ED.

Naval Officer's Sword

SIR: The sword, now part of the naval officer's uniform, has given rise to several questions concerning its construction and use.

How may stars are on the sword blade? Some have 13 stars, which would seem symbolic of the thirteen original colonies, while others have 16 stars.

In which direction is the eagle's head turned?

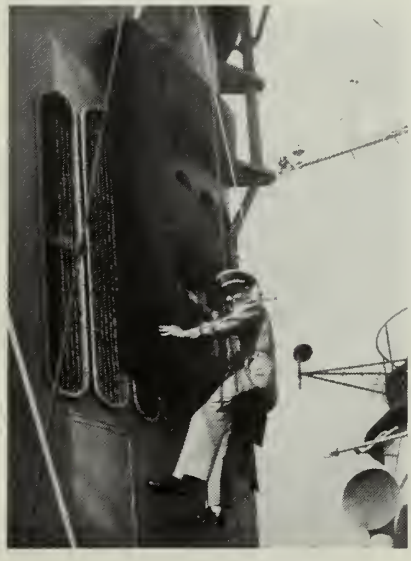
Is the sword normally used when an officer is in command of a group of men not under arms?

If a group of officers fall in together armed with swords, do they draw their swords with the commander of the unit?—J. W. O., LTJG, USN.

• *Sword blades manufactured before 1940 had 16 stars in an oval, one for each state in the Union in 1798, the year the Navy was established. Between about 1940 to 1942 some swords had 13 stars representing the original colonies. New swords are now being engraved with the old 16 stars in the oval.*

The direction of the eagle's head is to the viewer's left.

The sword is normally not used when the officer is in command of a group of men not under arms. If a group of officers bearing swords falls in together, the officers draw their swords with the commander of the unit.—ED.



ENGINEER OFFICER LCDR R. T. Blanchard, USS Worcester, takes look at 'E' his department won for '55.

Travel to Next Duty Station

SIR: I have a question which needs a little background before you can give me the answer. Here's the situation: A man is stationed at Coco Solo, Canal Zone, with dependents on station. He receives orders either to Norfolk, Va., or Patuxent River, Md., for duty. Transportation is available to next duty station via government air for him and his dependents. The man in question desires to travel via government air to Mobile, Ala., and then via commercial transportation to his ultimate duty station because his leave address is much closer to Mobile. Transportation to Mobile by government air is available.

And now to the question: Is it permissible to transfer him to his next duty station via Mobile without signing a waiver of transportation from Mobile to his next duty station?—J.J.S., PNCA, USN.

• *Travel must be performed by the most direct route to the new station; therefore, if government transportation is available from the Canal Zone at the time of detachment, to either Norfolk, Patuxent River or New York, you cannot be directed to proceed via Mobile, Ala., for personal reasons. However, you may be authorized to do this at no expense in excess of that allowed by the basic orders. That is, you may be authorized to travel by government air as far as Mobile. From Mobile to your duty station the cost of transportation must be at your own expense.*—ED.

Temporary Officers and Promotion

SIR: I am a permanent warrant officer, W-4, with temporary status as lieutenant commander, and have just over 19 years of service. I am puzzled by the following questions:

1. How long can I expect to remain with a higher temporary rank than my present permanent one?

2. What must I do to fit myself for temporary promotion to the next higher rank? Specifically, must I meet the same requirements for promotion to commander as those outlined in BuPers Inst. 1416.1 for permanent lieutenant commanders?

3. Must an officer complete correspondence courses required for promotion in lower ranks, but which he has not previously completed and which are not listed as necessary for his next higher promotion?

4. How can I determine which of the correspondence courses I have completed will grant me exemption from formal

examination? Specifically, will credit still be given for courses taken some time ago, but whose NavPers numbers have later been changed, indicating possible changes in the course itself?

Answers, or information leading to answers to these questions would be sincerely appreciated.—T. E. H., LCDR, USN.

• *Here are your answers:*

1. At present it is not possible to predict how long officers appointed for temporary service may be retained in that status.

2. USN(T) officers do not take promotion examinations at this time; however, BuPers Inst. 1416.3 sets forth a study guide for officers in this category, recognizing the future possibility of promotion examinations for such officers. USN(T) officers should follow this Instruction rather than Instruction 1416.1.

3. Courses listed in promotion examination plans for grades lower than your present grade need not be completed. Although it is not necessary to complete these courses, you are required to qualify in the subjects prescribed for your grade, either by promotion examination or exemption.

4. Examination exemptions will be granted for courses listed in the examination plans, or for superseding courses, but not for courses bearing an earlier NavPers number than the ones listed in the plan. For example, NavPers 10999-A indicates a later course than NavPers 10999, while NavPers 10999-B indicates a still later course. If the prommotion plan listed NavPers 10999, any of the three editions of the course would grant the indicated exemption; if the plan listed NavPers 10999-A, then earlier completion of NavPers 10999 would not grant exemption.—ED.

Duty in Tuscarora

SIR: I was stationed in USS *Tuscarora* (YTB 341) from 8 Apr 1953 to 7 May 1954. Although classed as a YTB due to her stability, she was originally an ATA and remained a commissioned vessel, with a commanding officer and entitlement to sea pay for her crew. *Tuscarora* was assigned to District Craft, Sixth Naval District, at the time and operated in conjunction with mincecraft, submarines and destroyers. Can you tell me if my time in her counted as sea duty? —G.W.B., BMC, USN.

• *Your duty in* USS Tuscarora *was counted as shore duty. At the present time all district craft are classed as shore duty for sea/shore rotation purposes. Legal entitlement to sea pay has no bearing on classifications for sea/shore rotation which are generally based on evaluation of liberty and recreational opportunities available to personnel assigned.*—ED.

'Aye, Aye, Sir'

SIR: Not too long ago you ran a letter and answer giving all the info on the term "Thank you, sir" when used at the end of mast. Now can you tell me where the term "aye, aye, sir" originated and whatever happened to it? — L. A. Y., LCDR, USN.

• *The phrase "aye, aye, sir" is one of the oldest in naval terminology and was derived from old English "Aye" meaning "yes."*

In modern usage the meaning is very explicit. It is the reply given by the junior to a direct order received from a senior and connotes the following, (1) I understand the order which I have received and I will carry out or obey the order. (2) If for any reason I am unable to comply with the order I will notify the senior giving the order and request further instructions.

The Navy's organization depends on giving explicit instructions to subordinates and requiring an orderly follow-through or follow-up. Thus "aye, aye, sir" has become the standard Navy reply.

As to "what ever happened to the expression," all we can say is that it is used every day throughout the Navy, whether ashore or afloat. There is no substitute and such phrases as "very good, sir;" "thank you, sir;" are erroneously used where "aye, aye, sir" is the correct reply.—ED.

Safe Working Load of Wire

SIR: The training manual for *Boatswain's Mate 3 & 2* (NavPers 10121-A) states (on page 190) that the safe working load of wire is found by using the following formula: *SWL in pounds is P = C² x 900 lbs.*

But *Cargo Handling* (NavPers 10124) on page 223 gives a different formula: *SWL in tons = D² x 8 (or Constant 8).*

Now look what happens when you work these two, using a two-inch wire in both formulas:

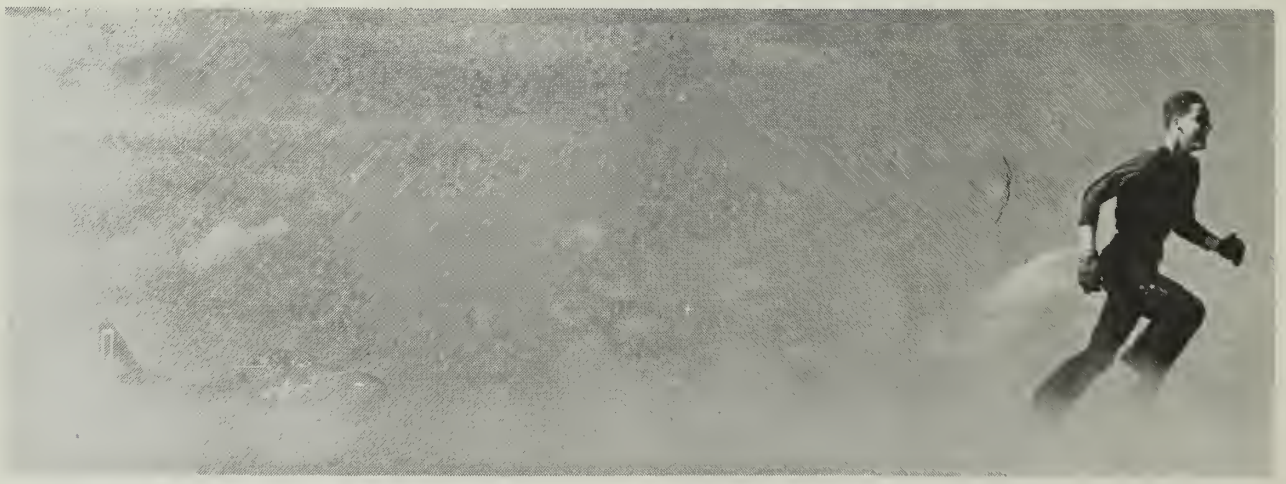
(A) SWLW = C^2 x 900 lbs.
gives you the answer in pounds ($3 \times D^2$)
gives you the rough circumference
$2 \times 3 = 6 \times 6 = 36 \times 900$ lbs. = 32,400 pounds or 16 tons, 400 pounds.

(B) SWLW = D^2 x 8 (Constant 8)
gives you the answer in tons
$2 \times 2 = 4 \times 8 = 32$ tons.

As you can see, there is a difference of 15 tons, 1600 pounds between the two answers. That is quite a large amount when you are working out a problem for safety's sake. Is there a discrepancy between the two manuals, or am I simply "fouled up" somewhere? —R.G.P., BM3, USN.

• *You're not fouled up exactly, but you missed one point in reading* Cargo Handling *(NavPers 10124). The book states that the formula SWL (or P) = D² x 8 is for a specific type of wire — improved plow steel, 6 strands, 19 wires per strand. The book goes on to explain that different constants would be used for different kinds of wire.*

The formula P = C² x 900 lbs. (in BM 3 & 2) is a general formula to be used for computing the safe working



NO TRICK TO IT—Photo shows flight deck man racing into 'steam' after launching on board *USS Hancock* (CVA 19).

load of standard Navy wire. It computes an SWL for the type of wire that might be used aboard ship, and should be used when you don't know the specifications of the wire. You could use the NavPers 10124 formula if you know the specifications of the wire you are using and the applicable constants.—Ed.

Eligibility for Reserve Medal

Sir: I first enlisted in the Navy in the category of USN-I (SA), and am interested in knowing whether this can be counted as Reserve service. At the time of my discharge, although I received a USN discharge, I was told that for all practical purposes I was a Reservist. I am presently in the Naval Reserve. Would the time I served in my first enlistment count toward a 10-year Naval Reserve or Armed Forces Reserve Ribbon?—H.D.J., EMPC, USNR.

• *No. USN (I) is counted as Regular Navy and unless you voluntarily enlisted in the Regular Navy or the Naval Reserve you are still an Inductee, and as such, this service cannot be credited toward the time requirements necessary for the Naval Reserve Medal or Armed Forces Reserve Medal.*—Ed.

Warrant Officer Insignia

Sir: For some time now I have wondered why warrant machinists of the Aviation designation have never had an insigne of the aviation rate. Why not give them the familiar insigne of the aviation machinist's mate which is a propeller with wings? This insigne could be worn as a collar device and also to replace the three bladed screw on shoulder boards and sleeves.—F.A.R., ADC, USN.

• *The insigne similar to that which you suggest is actually under consideration for warrant officers with the designation "Aviation Maintenance Technician." It is anticipated that the new insigne will be announced in the near future, but in the meantime these officers will continue to wear the insigne they have been wearing.*—Ed.

Computing Reenlistment Bonus

Sir: I first enlisted in the Navy in November 1950 for a four-year cruise. In 1954, I agreed to extend for two years to get shore duty. Will this extension count as my first reenlistment or will my first reenlistment be in 1956 when I ship over? I did not draw any pay for reenlistment, travel, leave, or mustering out pay. — A.L.H., AM2, USN.

• *In accordance with "NavCompt Manual" (para. 044075-2), an extension of two years or more is counted as a reenlistment. You are entitled to a reenlistment bonus computed as a first reenlistment under section 208, Career Compensation Act of 1949, as amended. Mustering-out pay and lump sum leave payments are not made upon extensions of enlistments. A reenlistment in 1956 would be a second reenlistment and a reenlistment bonus will be computed accordingly.*

According to "Joint Travel Regulations," (para. 4156), if you extend your current contract for two or more years, you will be entitled to mileage, from the place where your first extension took effect to the place of entry into the service or to the home of record, as you elect, regardless of whether or not the travel is performed.—Ed.

Korean PUC for Bremerton

Sir: I served in USS *Bremerton* (CA 130) in Korean waters during July 1953, prior to cessation of hostilities on 27 Jul 1953. Are personnel who were attached to *Bremerton* at this time authorized to wear the Korean Presidential Unit Citation? If so, what is the authority for this?—R.B.C., LT, USN.

• *The Bureau's records show that* USS Bremerton *served from 7 May 1952 to 13 Sep 1952, and 26 Apr 1953 to 27 Jul 1953, with Commander Seventh Fleet, which was awarded the Korean Presidential Unit Citation. Personnel serving on board at any time during that period are authorized to wear the Korean PUC ribbon. No medal is involved with this award.*

Public Law 354 of 8 May 1954 (83rd Congress) granted authority to personnel to accept and wear the Korean Presidential Unit Citation ribbon. You can obtain more information on this citation in BuPers Inst. 1650.5.—Ed.

Korean Campaign Ribbons

Sir: What ribbons and awards did USS *Bexar* (APA 237) and USS *Philippine Sea* (CVA 47) earn for their Korean duty? — L.M.B., BT1, USN; R.C.B., BM1, USN.

• Bexar *is eligible for the following ribbons and medals for service during the period from August 1950 to January 1951: National Defense Service Medal, Korean Service Medal, United Nations Service Medal and Korean Presidential Unit Citation.* Philippine Sea *is eligible for the following ribbons and medals for service during the period from December 1949 to March 1953: Navy Unit Commendation, China Service Medal, National Defense Service Medal, Korean Service Medal, United Nations Service Medal and Korean Presidential Unit Citation.*—Ed.

New Working Uniform Jacket

Sir: Can the new working uniform jacket and baseball cap be worn with anything but dungarees? — S.A.S., AN, USN.

• *A forthcoming change to "Uniform Regulations" prescribes that the new blue working uniform jacket and ski-type cap may be worn with undress blues as well as with dungarees or other working uniform. This jacket and cap were primarily authorized following requests from the Fleet for a practical working uniform.*

Previously enlisted men had to wear the white hat and the pea coat while performing maintenance duties or else resort to use of foul weather clothing. The new jacket and cap are for wear aboard ships and stations, not for wear ashore or off station, and from comments received to date it is obvious that they fill a long-felt need.—Ed.

Keeping White Uniforms Clean

Sir: For years now men have been offering suggestions about changes in the enlisted man's uniform, and here is my contribution. I have discussed the following idea with a number of sailors here in the Canal Zone, however, and we all think it has merit.

Why not dye the regulation whites Navy blue and, perhaps, add a couple of pockets in the rear. Practically all of us like the blue uniform as is, but whites are almost impossible on a liberty of any length, so we are forced to wear civvies or else return from liberty looking like coalheavers. I think many Navymen, like the soldiers and airmen hereabouts, would prefer to wear their summer uniforms ashore, if the uniforms could be kept presentable.—P.J.McB., DC2, USN.

• *It is true that the Navy whites require a higher standard of cleanliness and appearance than do the other services' khaki summer uniforms. But we are unable to agree with you that it is impossible to keep whites looking good on liberty. Navymen and officers have been wearing whites for over 114 years afloat and ashore that we have record of, in every port and city of the world, and they have usually managed to look pretty good. Your idea to dye the whites a blue color would only do one thing — it would conceal the dirt.*

Although we don't agree with your blue-dye idea, you do have a point about improving the white uniform. Efforts are being made right now along that line — with newly-developed commercial synthetic-resin finishes that give the cotton cloth improved resistance to wrinkles and resistance to soiling. If these experiments pan out and are accepted, future material should have much-improved wrinkle-resistance and soil-resistance, and should be a big step toward correcting the objections you now have to whites on liberty.—Ed.

Broods Get Bigger All the Time

SIR: Have just been reading the November issue of ALL HANDS and ran across the pictures of tenders with a great number of ships alongside. On 31 Aug or 1 Sep 1945 at Subic Bay, P. I., USS *Howard W. Gilmore* (AS 16) under Rear Admiral Fife, was getting ready to sail for the States. They brought 18 subs alongside to port and tied them up in a row. Took pictures and then cast off for the run Stateside. I don't know where the pictures are or if they are still in existence but am sure a lot of men will remember this event. It should just about top them all.—C.N.S., TM1, USN.

• *It's too bad you don't have the picture you mentioned as we should like to run it. How about you men who served in* Gilmore; *can any of you dig it up and send it in for publication? The largest brood that has appeared to date in a photograph is 13 (see* ALL HANDS, *January 1956, p. 18).*—ED.

Jack-Knife Lanyards for Salty Sideboys

SIR: I thought you might like some further information on the lanyards worn by sideboys of USS *Des Moines* (CA 134) in the cover picture of the August 1955 issue of ALL HANDS. The information was supplied by CHBOSN O. E. Olson, USN of USS *Des Moines*. These are two-strand braid sennit, jack-knife lanyards. Sideboys on this ship also wear five-strand flat, and six-strand round sennit lanyards.

TWO-STRAND sennit jack-knife lanyard worn by sideboys is inspected by seaman on *USS Des Moines*.

Jack-knife lanyards such as these have been used since the earliest days of our naval history. Before WW II, all seamen on deck were required to wear them. During the War, however, many seamen shifted over to the use of sheath-knives which could readily be whipped out for emergency use.

The jack-knife lanyard fell into disuse for another reason, also. They were found to be especially dangerous when worn while operating machinery.

Des Moines' Ship's Regulations now authorize the possession of only regulation jack-knives as are sold in the ship's store. The old naval custom of jack-knife lanyards is perpetuated by having the sideboys wear them.—H. H. Holton, CDR, USN.

• *Thanks for the additional info. We think it's a good idea to preserve as much naval tradition as possible. The salty appearance of your sideboys wearing jack-knife lanyards is one reason why we selected that photograph for our August 1955 cover.*

Anyone who wants to make a "jack-knife lanyard" can find instructions for tying a variety of sennit weaves suitable for lanyards in the Naval Training Course Manual, "Boatswain's Mate 3 & 2" (NavPers 10121). Also, any book on fancy rope work will provide instruction for sennit braiding.—ED.

SALTY SIDEBOYS perpetuating the old Navy custom of wearing jack-knife lanyards line up on board *USS Des Moines* while with Sixth Fleet in Med.

Shore Duty Tour for HM2

SIR: An HM2 reported for a normal tour of shore duty on 7 May 1954. At that time, his normal tour should have been three years. Authority for that has been superseded by BuPers Inst. 1306.-20B, which lists the normal tour of duty for an HM2 at two years.

We were instructed to change the HM2's tour date, reducing it by one year. We were also advised that if he were advanced to HM1, his tour date would again be changed back to three years. My interpretation of BuPers Inst. 1306.-20B is that it does not mean to change the tour date of personnel already on shore duty, but rather gives the normal tour to be assigned personnel now being processed for shore duty. Should the HM2's tour date be changed and could it again be changed to three years if he is advanced to HM1?—E.M.A., YN1, USN.

• *When one instruction cancels another, the provisions of the new instruction become effective unless special provisions are made to the contrary. BuPers Inst. 1306.20B cancelled in its entirety BuPers Inst. 1306.20A. Therefore, the tour prescribed in the later instruction is applicable. If he is advanced to HM1, his tour will be three years.*—ED.

Ten Battle Stars for Ellet

SIR: I was attached to USS *Ellet* (DD 398) from 2 May 1941 to 15 Sep 1945 and I'm pretty proud of her war record. I wondered if you could tell me what campaign stars she earned during this period.—L.W.H., ACC, USN.

• *You are certainly justified in being proud of the destroyer* Ellet *for her record is a valiant one. When the Japanese attacked Pearl Harbor she was operating with Task Force Eight off the Hawaiian Islands. As soon as she learned of the attack she steamed immediately for Pearl Harbor and from then on she was in the thick of the Pacific war — earning ten battle stars on the Asiatic-Pacific Area Campaign Medal for participation in the following operations:*

Midway (*6-3 June 1942*); Guadalcanal — *Tulagi landings* (*7-9 Aug 1942*); Eastern Solomons (*23-25 Aug 1942*); New Georgia-Rendova-Vangunu Occupation (*23-25 Jul 1943*); First Anti-Submarine Assessment (*3 Sep 1943*); Marshall Islands Operations — *Occupation of Kwajalein and Majuro Atolls* (*31 Jan - 8 Feb 1944*), *Occupation of Eniwetok Atoll* (*17-24 Feb 1944*); Palau, Yap, Ulithi, Woleai Raid (*30 Mar - 1 Apr 1944*); Marianas Operation — *Capture and Occupation of Saipan* (*11-24 Jun 1944*), *First Bonins Raid* (*15-16 Jun 1944*), *Battle of Philippine Sea* (*19-20 Jun 1944*), *Capture and Occupation of Guam* (*12 Jul - 15 Aug 1944*), *Palau, Yap, Ulithi Raid* (*25-27 Jul 1944*) *and Fourth Bonins Raid* (*4-5 Aug 1944*); Rennell Island (*29-30 Jan 1943*) *and* Bombardment of Iwo Jima (*8 Dec 1944 - 5 Jan 1945*).—ED.

AC Wants to Know about Radar

SIR: Why is the subject of shipboard radar included in the examination for advancement in the air controlman rate? Shipboard radar doesn't seem to have any relationship to the rate, but numerous questions on this subject appear quite often on the exam.—E.W.S., AC 1, USN.

• *Since air controlmen serve on board carriers equipped with carrier approach control, it is only reasonable that you should be expected to know something about shipboard radar. Also, it depends on what you consider "numerous questions" on shipboard radar. A review of some past AC rating exams did not reveal an exceptional number of questions on this subject.*

Further, Qualification 201.12, under Examination Subjects, in the "Manual of Qualifications for Advancement in Rating" states that methods of using radar, direction finding equipment and IFF for locating, tracking, identifying and intercepting aircraft are required of all air controlmen.—ED.

Shore Billets for DK's

SIR: I'm due to ship over in a few months and am thinking of doing just that. However, there is a rumor going the rounds that upsets me and I thought you might be able to give me the correct information. My informants tell me that the Navy has been replacing sailors with civilians in my rate at bases in the states. Does this mean that in a few years civilians will be operating all the big disbursing offices in the states and that the only billets for a Navy DK will be aboard ship? If such is the case the future looks pretty dark for the DK rating, what with no shore duty in sight. What's the story?—D.D.L., DK2, USN.

• *No major replacement of DK military billets by civilian positions in continental United States is planned. While it is true that some replacement of DKs by civilians has taken place in accounts disbursing offices, as a DK2 it will be of interest to you to know that since the sea/shore billet ratio for your rate is currently within the desired range of billet ratios, further substitution of DK2 billets in continental U. S. by civilians is curtailed.*

And looking ahead, the outlook for sea/shore rotation in your rating is very good.

There are currently as many shore billets as sea billets for DK1s and more shore than sea billets for DKCs.—ED.

Questions about Guided Missilemen

SIR: Several of our men who hold guided missile ratings are interested in answers to the following questions, but we have been unable to find satisfactory answers in any Navy publications or directives: (1) Does duty or duty under instruction at a guided missile training unit count as sea or shore duty for personnel coming from shore duty to sea duty and from sea duty to shore duty? (2) What is the length of sea duty required for GS ratings before applying for shore duty? (3) What is the length of a shore duty tour for GS and GF ratings? (4) At present, are there any billets for GS or GF ratings at NROTC units? (5) Are there any vacancies for GS or GF ratings as instructors at the U. S. Naval Guided Missiles School, FAD-TC, Dam Neck, Va.? (6) Is the Bureau accepting nominations from commanding officers for the permanent appointment of CPOs now serving under acting appointments? —F.H.A., YN1, USN.

• *Here are your answers in one, two, three order:*

1. Although all Guided Missile Training Units (GMTUs) have been disestablished, duty in such units did count as shore duty since it was performed in an activity based ashore in the U. S. Duty with Guided Missile Units (GMUs) under naval district commandants is shore duty as well as duty with GMU-41 and Guided Missile Augmenting Units 0411 and 0412 under Fleet Aircraft Service Squadrons 5 and 12; however, duty with other GMUs under Fleet commanders or on board naval vessels is sea duty. If you are in doubt as to the proper procedure for submitting applications for BuPers shore duty, your attention is invited to paragraph 11, enclosure 2, of Bupers Inst. 1306.20B.

2. Men who hold pay grades E-7 and E-6 in the GS and GF ratings must have 18 months of sea duty before applying for shore duty; E5s E-4s and designated strikers must have 24 months of sea duty. The next revision to BuPers Inst. 1306.20B will include this information.

3. Although changes may be necessary as the program expands, the current length of a tour of shore duty for GS and GF is three years.

4. No billets are available for GS and GF at NROTC units at the present time.

5. Billets are established for GS ratings only as instructors at the U. S. Naval Guided Missiles School, FAD-TC, Dam Neck, Va. Applications should be submitted in accordance with BuPers Inst. 1306.22B.

6. As specified in paragraph 13 of BuPers Inst. 1430.7A, permanent appointments are not being issued to personnel appointed to pay grade E-7 subsequent to 31 Dec 1950.—ED.

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Souvenir Books

In this section ALL HANDS prints notices from ships and stations which are publishing souvenir records and wish to advise personnel formerly attached. Notices should be directed through channels to the Chief of Naval Personnel (Attn: Editor, ALL HANDS), and should include approximate publication date, address of ship or station, price per copy and whether money is required with the order.

USS *Essex* (CVA 9) has a limited number of cruise books available covering the 1954-1955 Far Eastern cruise. Books are available to former crew members and Carrier Air Group 2 at $3.20 per copy. Orders should be addressed to: Chaplains Office, USS *Essex* (CVA 9), FPO San Francisco, California. The order should be accompanied by a postal money order payable to: Custodian, Recreation Fund, USS *Essex* (CVA 9).

Uniform Allowances

SIR: I am a first class petty officer hopeful of being selected as a Limited Duty Officer. I have never received any allowance or gratuity for uniforms except that which is authorized for enlisted men other than chief petty officers. Recently, I found that there has not been a provision of law to authorize a uniform gratuity to an enlisted member who is accepting a permanent commission in the Regular Navy.

I can usually find the reason behind our well-founded regulations and policies, but the lack of a provision in this case does not appear to be reasonable. Existing laws seem to provide a gratuity to all other personnel who are required to procure uniforms. An enlisted member, for example, who accepts a temporary appointment would be entitled to $250 uniform gratuity.

Would it be possible that Congress would make a provision for individuals in my circumstance? If such a provision were made would it be retroactive to the time when the provision was needed? —J.L.B., DKI, USN.

• *For many years only enlisted personnel, Reserve officers and personnel appointed to temporary rank have received uniform allowances, either in kind or cash. Regular Navy officers have received no allowance. The reason for this appears to be that since the usual source of procurement of Regular Naval officers was from the Naval Academy, the midshipmen could build up a complete outfit of uniforms during their four years of instruction without undue financial hardship.*

The following resume of uniform gratuities should clarify the question for you:

Before 1942, clothing was issued to enlisted men, but enlisted personnel promoted to CPO received no uniform allowance. Reserve officers were the only personnel who received a uniform gratuity inasmuch as they normally were not on active duty for any long period of time.

Shortly after the beginning of World War II, cash clothing allowances, including maintenance allowances, were authorized for enlisted personnel accepting a temporary appointment as an officer, and they have continued for Reserve officers.

When the officer candidate school came into existence, from which enlisted personnel are commissioned in the Regular Navy, a different problem arose because of the short duration of the course of instruction.

The Chief of Naval Personnel is now trying to pave the way for enlisted personnel accepting a permanent commission in the Regular Navy to receive a uniform allowance. If such an allowance is authorized, it is doubtful that it could be retroactive.—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• USS *South Dakota's Veterans' Assn., WWI* — The 35th annual reunion of World War I crew members of this ship will be held 7 Apr 1956 at the Emerson Hotel, Hoquiam, Wash. For further information contact Carl Haggland, 2119 N.E. 59th Ave., Portland 13, Oreg.

• USS *Montague* (AKA 98)—Former shipmates interested in holding a reunion with time and place to be decided by mutual consent should write to Harry Furman, Box 25, Stoneham, Mass.

RETIRED ON 20—Chief Engineman John G. Lurtz, USN, accompanied by his wife Rose, comes ashore for the last time amid shipmate sideboys at Great Lakes Naval Training Center. Chief Lurtz was barracks commander at Service School Command at the Center during his final cruise with the Navy.

OIC of Recruiting Station

SIR: We have run into a little controversy about how one would officially address the officer-in-charge of a Navy Recruiting Station. For example, would LCDR W. T. Door, Officer-in-Charge, Navy Recruiting Station, Anytown, U.S.A., be officially addressed as "Mr. Door" or "Captain"?—G. H. M., ADC, USN.

• *LCDR W. T. Door, Officer-in-Charge, Navy Recruiting Station, Anytown, U.S.A., would be addressed as "Mr. Door" since he does not command a ship or station.*—ED.

Defense Service Medal

SIR: Was a service ribbon issued for the national emergency period 1939 to 1941? During this period, I served as chief signalman on board USS *Raleigh* (CL 7). Would I be entitled to this award, and to whom should I forward my request?—F.H., CH BOSN, USN (Ret.).

• *You are entitled to the American Defense Service Medal which is awarded to all persons of the naval service who served on active duty between 8 Sep 1939 and 7 Dec 1941, both dates inclusive. You are also entitled to wear the "Fleet" clasp on this medal for service on board* Raleigh.—ED.

This Subject Covers Lots of Territory

IT HAPPENS TO EVERYONE. You arrive at a strange port and everyone seems to know his way around but you. This is frequently as true in the continental United States as it is in a foreign port. However, there's a pattern to the apparent confusion in the U. S. ports. If you know something about the naval districts, how they are organized and how they work, you're well on your way out of the fog.

In the first place, almost everything that happens to you on stateside duty occurs through the naval district. Suppose, for example, you're in a ship entering a stateside naval shipyard. The district craft that service your ship—harbor tugs, yard oilers, water barges, ammunition lighters—all come under the district commandant.

If you go ashore on liberty the uniform you wear in the area has been decided by the district commandant. Shore patrols, who make sure you wear that uniform properly, are also under the command of the district commandant.

If you check into the local receiving station or report to a separation center, the men who handle your records, who detail you to working parties, and who prepare your meals represent the commandant, either directly or indirectly.

But what *is* a naval district? Briefly, it is one of a number of geographically defined areas established by the Secretary of the Navy for administrative purposes. It is under the command of a line officer known as the "Commandant," who is qualified for command at sea and who acts as representative of the Secretary of the Navy, the Chief of Naval Operations and the appropriate sea frontier commander. In addition, he is the representative of the various Navy Department bureaus and offices within the area of his command. In short, he has a man-sized job which is comparable, perhaps, to the district manager of one of the largest, world-wide businesses in the world.

The two naval river commands (Potomac River Naval Command and Severn River Naval Command) are similar in most respects except size.

What does a naval district mean to you? Here's a condensed list of the functions of a district commandant — a two-star admiral — and which are carried out by Navymen and civilians:

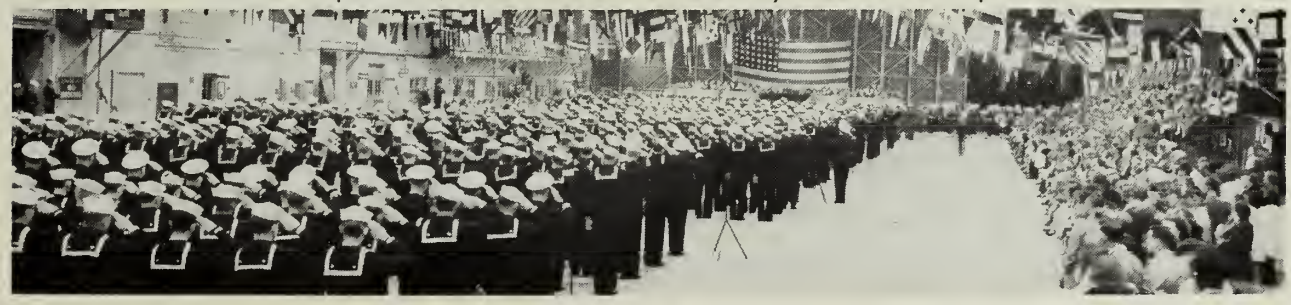
- He provides and coordinates logistical and operational support to the operating forces as necessary.
- He is responsible for all matters affecting the procurement, maintenance, morale and training of Naval Reserve personnel—with the exception of certain Naval Air Reserve matters.
- He is charged with the military defense of his district and with providing aid during local disasters and emergencies. All naval facilities within his district and all Navy and Marine Corps personnel assigned to those activities are at the commandant's disposal in the event of such a local disaster, emergency, or attack endangering the district.
- In public relations matters, the commandant is the direct representative of the Navy Department for all naval activities within his area.
- Each commandant maintains within his district an intelligence service. This service includes such intelligence matters as affect the security of naval activities within the district and such operational intelligence matters as are required by the commander of the sea frontier in which the district is located. The commandant also maintains close relations with intelligence officers for the forces afloat.
- The operation of the Naval Communications Service within his district is another of the commandant's responsibilities.
- He coordinates action with the local representatives of other government departments and cooperates with the Army and Air Force authorities located in the district in the preparation and execution of war plans and plans for handling local disasters or emergencies when they occur.
- The district commandant's functions also include the distribution of naval personnel ordered to him for assignment; maintenance of prescribed standards for shore patrol, uniforms, general welfare; and other matters which have a direct bearing on the discipline and morale of the Navy or its relations with the public.
- District legal matters and district printing and distribution also add to the list of the commandant's functions.

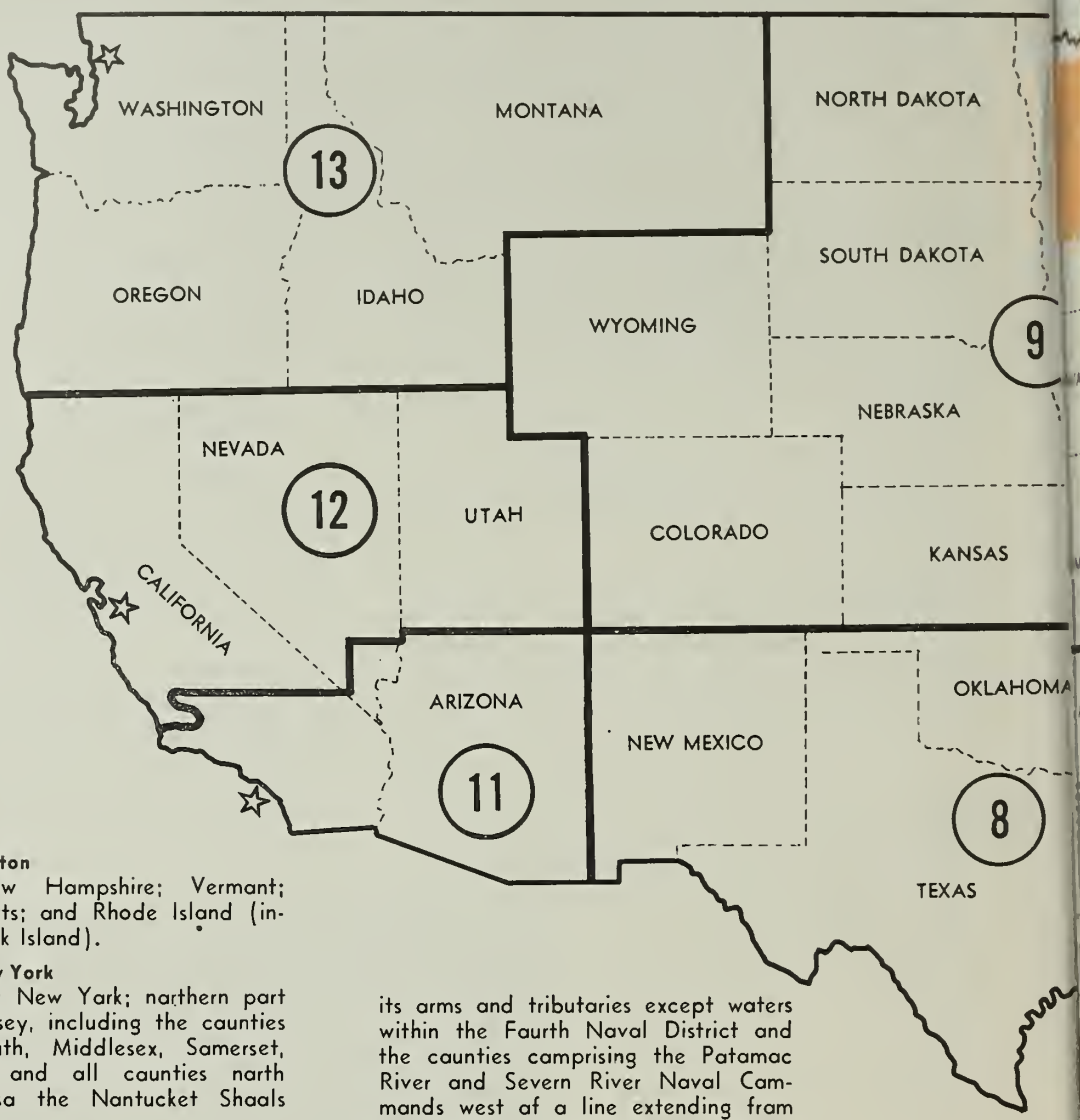
An exception to the above listed USNR function of commandants is found in the Severn River Naval Command. Reserve matters in the Annapolis-centered command are under the control of the Commandant, Potomac River Naval Command.

Try reaching or moving around in a stateside naval activity without brushing against some component of the local commandant's organization! Even if you paddle a punt into a flooded drydock on the mid watch, his long arm can reach you.

The drydock is a part of the industrial department of a naval shipyard. The shipyard is a component of the naval base. Naval bases located within naval districts are under military command of district commandants.

LARGE NUMBERS of naval personnel, on active and inactive duty, come under supervision of naval districts.





1st ND—Boston
Maine; New Hampshire; Vermant; Massachusetts; and Rhode Island (including Black Island).

3d ND—New York
Cannecticut; New Yark; narthern part af New Jersey, including the caunties af Manmauth, Middlesex, Samerset, Hunterdon, and all caunties narth thereaf; alsa the Nantucket Shaals Lightship.

4th ND—Philadelphia
Pennsylvania; sauthern part af New Jersey, including caunties af Mercer, Burlingtan, Ocean, and all caunties south thereaf; Delaware, including Winter Quarter Shaal Light Vessel; and Ohia.

5th ND—Norfolk
Maryland, less Anne Arundel, Prince Gearges, Montgamery, St. Marys, Calvert, and Charles Caunties; West Virginia; Virginia, less Arlingtan, Fairfax, Staffard, King George, Prince William, and Westmareland Caunties and the city af Alexandria; alsa all waters of Chesapeake Bay including its arms and tributaries except waters within the Faurth Naval District and the caunties camprising the Patamac River and Severn River Naval Cammands west af a line extending fram Smith Paint ta Paint Laakaut thence fallawing the general cantour af the shareline af St. Marys, Calvert, and Anne Arundel Caunties, as faired by straight lines from headland ta headland acrass rivers and estuaries; Kentucky; and the counties af Currituck, Camden, Pasquatank, Gates, Perquimans, Chowan, Dare, Tyrrell, Washingtan, Hyde, Beaufort, Pamlico, Craven, Jones, Carteret, and Onslow in Narth Caralina.

6th ND—Charleston
Narth Carolina, less the caunties of Currituck, Camden, Pasquatank, Gates, Perquimans, Chawan, Dare, Tyrrell, Washingtan, Hyde, Beaufart, Pamlica, Craven, Jones, Ca
South Carolina;
Alabama; Tenness

8th ND—New Orle
Lauisiana; Arkanso
and New Mexico.

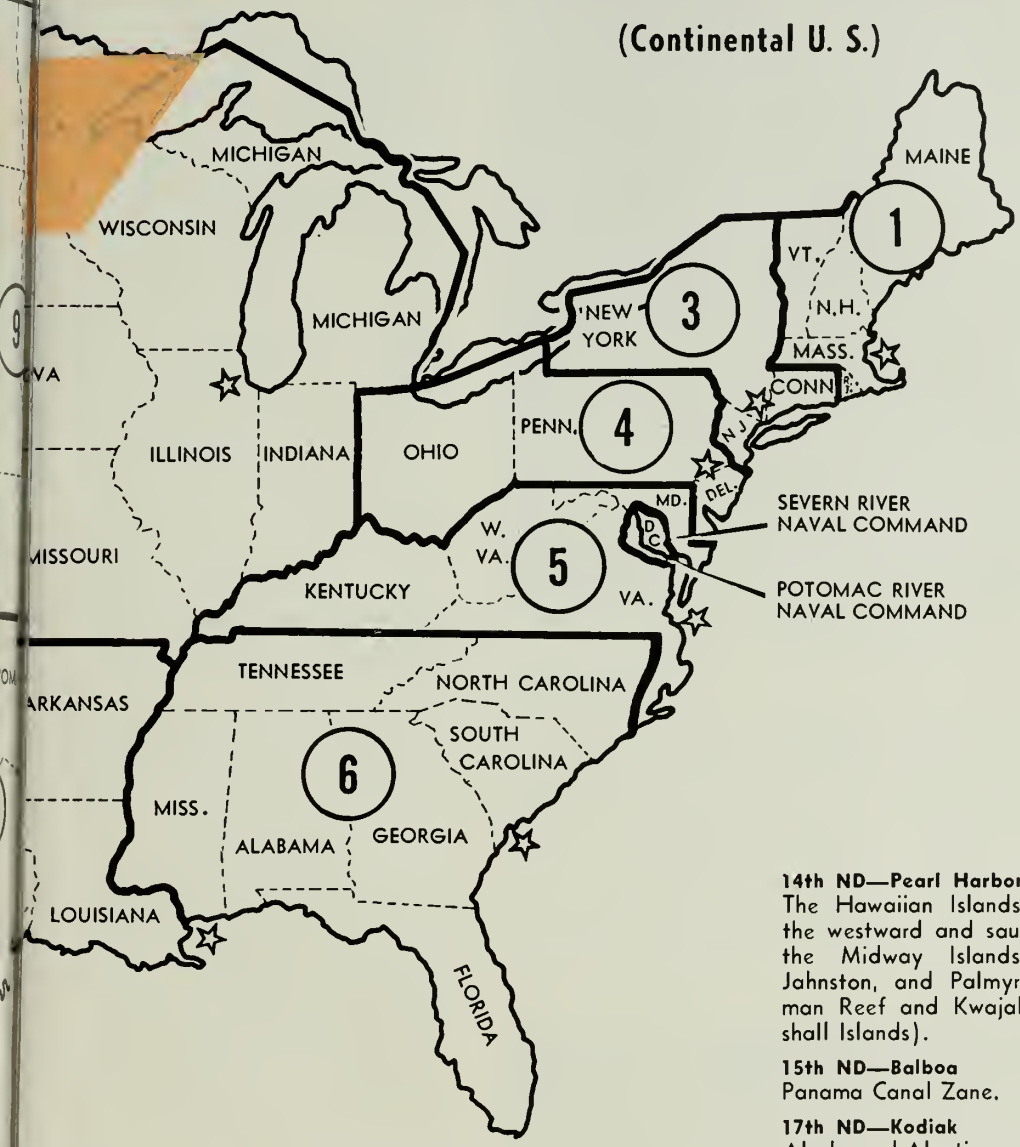
9th ND—Great La
Michigan; Indian
sin; Minnesata; I
Dakota; South
Kansas; Calarada;

10th ND—San Jua
Caribbean area.

Prepared by ALL HANDS Magazine

THE NAVAL DISTRICTS

(Continental U. S.)



and Onslaw; rgia; Florida; nd Mississippi.

lahoma; Texas;

l. inois; Wiscon- Missauri; Narth ta; Nebraska; Wyaming.

11th ND—San Diego
Arizona; Clark County, Nevada; southern part of Califarnia, including caunties af Santa Barbara, Kern, and San Bernardina, and all caunties sauth thereaf.

12th ND—San Francisco
Utah; Nevada (except Clark Caunty); narthern part af Califarnia, including caunties af San Luis Obispa, Kings, Tulare, Inya, and all caunties north thereof.

13th ND—Seattle
Washingtan; Oregon; Idaho; and Montana.

14th ND—Pearl Harbor
The Hawaiian Islands and islands ta the westward and sauthward including the Midway Islands, Kure, Wake, Jahnston, and Palmyra Islands, Kingman Reef and Kwajalein Atall (Marshall Islands).

15th ND—Balboa
Panama Canal Zane.

17th ND—Kodiak
Alaska and Aleutians.

Potomac River Naval Command—Washington, D. C.
The Patamac River up ta Great Falls; The District af Calumbia and the caunties af Prince Gearges, Mantgomery, St. Marys, Calvert, and Charles in Maryland; and the counties of Arlingtan, Fairfax, Staffard, King Gearge, Prince William, and Westmareland in Virginia; and the city af Alexandria, Va.

Severn River Naval Command—Annapolis, Md.
Camprises the county of Anne Arundel, Md.

TODAY'S NAVY

WAVE-OFF—Pilot of F9F-6 Cougar clears the barricade on flight deck of USS *Yorktown* (CVA 10) after being "waved off" by the landing signal officer.

In Footsteps of Columbus

A Navy captain has successfully combined his official orders with his interests in navigation and history.

After concluding his tour of duty as Naval Attache for Air at the U. S. Embassy in Cairo, Egypt, Captain Morton Sunderland, USN, requested two months' leave before he reported to Norfolk, Va., for further assignment. En route, he was able to retrace in the 17-ton yacht *Iolaire* much of the route followed by Columbus in his discovery of the new World. Three civilian crew members accompanied Captain Sunderland.

The cruise started at Palma, Majorca, and led to Gibraltar and the Tangiers area. After a four-day liberty, they proceeded to the Canary Islands to prepare for the longest jump on the voyage—27 sailing days to Antigua.

After a few day's rest, the balance of the trip was — relatively — easy sailing from Antigua to Charlotte Amalie in the Virgin Islands and from there to San Juan, P. R.

As commanding officer of USS *Diamond Head* (AE 19), Captain Sunderland is now looking for new worlds to conquer.

(The expedition of Columbus was not quite so simple. With 120 men he sailed from Palos, Spain, on 3 Aug 1492 with three vessels—*Santa Maria*, 100 tons, and *Pinta* and *Nina* of 50 and 40 tons. He departed the Canary Islands on 9 September and landed on what is believed to have been San Salvador in the Bahamas on 12 October and Cuba on 28 October.)

YESTERDAY'S NAVY

On 13 Feb 1862 the U.S. ironclad *Carondelet* on the Cumberland River, Tenn., opened fire on Fort Donelson at the request of General Grant in an effort to divert Confederate attention from his movements. On 13 Feb 1874 a landing force of 150 officers and men from USS *Tuscarora* and USS *Portsmouth* went ashore at Hawaii to quiet demonstrations during the election of the king. On 6 Feb 1811 the first Naval Hospital was established by Act of Congress. On 18 Feb 1865 Rear Admiral J.A. Dahlgren took Charleston, S.C., after it was evacuated by the Confederates.

Know-Your-Ship Contest

Lieutenant O. K. Hallam, USN, commanding officer of USS *Pinnacle* (MSO 462), believes in encouraging his men to know as much as possible about the Navy and their ship.

Giving the men an extra incentive, he initiated a ship's contest consisting of a 75-question quiz. Prizes were offered to the four men submitting the greatest number of correct answer sheets.

All enlisted personnel below the grade of CPO are eligible to participate in the contest. Questions on the quiz are on such items as naval history, deck seamanship, first aid, navigation, safety, fire fighting and damage control.

Winner of the top prize receives a free liberty and two cartons of cigarettes. Second prize consists of two cartons of cigarettes and third and fourth prize a carton of smokes for each.

In addition, all the entrants gain knowledge that will be valuable when they take examinations for advancement in rating this month.

Tug Crew Rescues Six Men

Six fishermen were rescued from the waters of New Jersey's Raritan Bay by the crewmen of the tug USS *Wabanaquot* (YTB 525). The rescued men were part of the crew of the 61-foot bunker boat *Isaetta*, which had been rammed by a purse boat it had under tow.

Large waves had forced the 32-foot purse boat into the stern of *Isaetta*, which sank in less than five minutes.

The Navy tug, under command of John R. Hubbard, BMC, USN, took aboard six survivors who had reached a lifeboat, which had also been under tow by the stricken *Isaetta*.

Crewmen of the Navy tug, beside Hubbard, were John N. Hreno, BM1, USN, John Page, EN1, USN, Harriman F. Clay, EM3, USN, Eugene H. Blakney, CS2, USN, Phillip A. Popovich, FN, USN, Emil Machado, SN, USN, Carl Gambacurta, FN, USN, Murray L. Simmons, SA, USN, H. L. Gallier, SN, USN, R. LaRochester, SN, USN, and George Pappas, SN, USN.

Award for Accident-Free VP

For flying a total of 1762 accident-free hours Patrol Squadron 42 at Coronado, Calif., was awarded the Quarterly Aviation Safety Award by Commander Air Force Pacific Fleet.

The Quarterly Aviation Safety Award is presented to Pacific Fleet Aviation Squadrons which complete one quarter of a calendar year without having an accident charged to their safety record.

VP-42 received the award for the second quarter of 1955 when members clocked their 1762 accident-free hours.

Navy Music Corners

Everyone has his own particular taste in music and at NAS Jacksonville, Fla., Navymen may enjoy leisure hours listening to their favorites at two widely-spaced centers.

Housed under the sloping beams of what was once a storeroom, the NATTCenter record room, equipped with two machines, has since 1952 built up a collection of over 140 albums of classical and semi-classical music. Many requests have been the basis for this "quality" list of titles.

On the other hand, the Mainside Lounge is home to those who like to listen to their own collection of records — most of them representative of modern schools of jazz. Some of the listeners keep their records in lockers in the lounge, while others bring their records with them each time.

Given the opportunity of hearing the new records several times, many have compiled individual collection of records which have become particular favorites.

More than 30 new albums have recently been placed in the NATTCenter music appreciation room. Among the new titles is a complete "Messiah" by Handel.

Perhaps one of the most popular, based upon the number of listeners, is the "Victory at Sea," sound track for the documentary NBC television series.

Shortly after the Center was established, it had become so popular that queues were formed outside the little storeroom.

The following year, a second machine was purchased with two sets of head phones (places for eight sets) and recordings of language lessons with manuals in French, Spanish, German, and Russian. At this time some records such as dramas from Shakespeare, and readings from Sandburg and Basil Rathbone were added.

Selections can be found by such composers as Bach, Beethoven, Berlioz, Bizet, Brahms, Chopin, Debussy, DeFalla, Dvorak, Gershwin, Gilbert and Sullivan, Gould, Gounod, Grieg, Haydn, Kern, Liszt, Mendelssohn, Mozart, and many others.

Folk songs, hymns, musicals, Christmas carols, sound tracks, and religious music are also available among the collection.

SQUARE THAT HAT — Two-year-old Robert Peters, son of J. R. Peters, CE2, USN, squares hat for inspecting officer, CDR R. J. Lavery at Yokosuka, Japan.

Record for Fighting Phil

USS *Philippine Sea* (CVS 47) has returned to San Diego after bringing her fifth Far Eastern cruise to a close.

Philippine Sea (formerly CVA 47 and a veteran of the Korean War), has just completed seven months' operations with U.S. Seventh Fleet units in the Western Pacific, with Navy Air Task Group Two embarked.

During its 152 days at sea the ship steamed a total of 69,600 miles, at the same time compiling impressive statistics in her flight operations.

The flattop's catapults each completed their 13,000th launch two months before the cruise ended. The ship launched 5725 aircraft during operations and brought her total number of shipboard landings to 72,265, which placed her second in number of recoveries for all Navy carriers.

On 24 October the ship launched 19 jets, eight propeller aircraft and landed 13 props in a 17-minute operation. The 40 sorties in 17 minutes is claimed to be a new record for Navy carriers. In the months of task force steaming, the pilots of Air Group Two flew a total of 9181 hours without a single pilot injury, while 12 pilots completed over a hundred carrier landings each during the cruise.

The newest carrier in her class, *Philippine Sea* was commissioned at the Boston Naval Shipyard on 11 May 1946. She has been on continuous active duty since that date. Among her past cruises have been an expedition to Little America, two

TURNTABLE TIME—Sailors at NAS Jacksonville, have their own music rooms, one for classical—one for jazz, where they can spin their favorite platters.

FASTER-THAN-SOUND fighter, XF8U-1, has completed successful test runs. Designed for carrier use, this new plane, has supersonic speed in level flight.

Mediterranean cruises and four previous visits to the Western Pacific area, the first three during the Korean War.

Manned by nearly 3000 officers and men, *Philippine Sea* has twin nicknames. The first, "The Showboat," was given her when she served as the Navy's demonstrator carrier to numerous government officials preceding the Korean conflct. The second, "The Fighting Phil," was earned during that time when the ship put in three cruises on the line where her planes dealt crippling blows against enemy supply lines and strongholds.

Supersonic Fighters

The Navy's newest jet fighter plane, the XF8U-1, designed to operate from aircraft carriers at supersonic speeds, has successfully passed a series of test flights.

The new plane is designed to improve further the Navy's capabilities for control of the air in areas of sea operations. Specifications for the XF8U-1 call for a high rate of climb, exceptional combat ceiling, and penetration of the speed of sound in level flight.

The general plan of the XF8U-1 marks a substantial departure from previous fighters. The thin swept-wings are mounted high on the fuselage and are set well back of the cockpit. The horizontal tail is joined low on the fuselage.

A short, pointed nose, fairing smoothly into a small cockpit canopy, helps reduce drag and aids over-the-nose visibility, essential to safe carrier landings.

Titanium was employed in the plane's aft section and in a portion of the mid-section as an important pound saver.

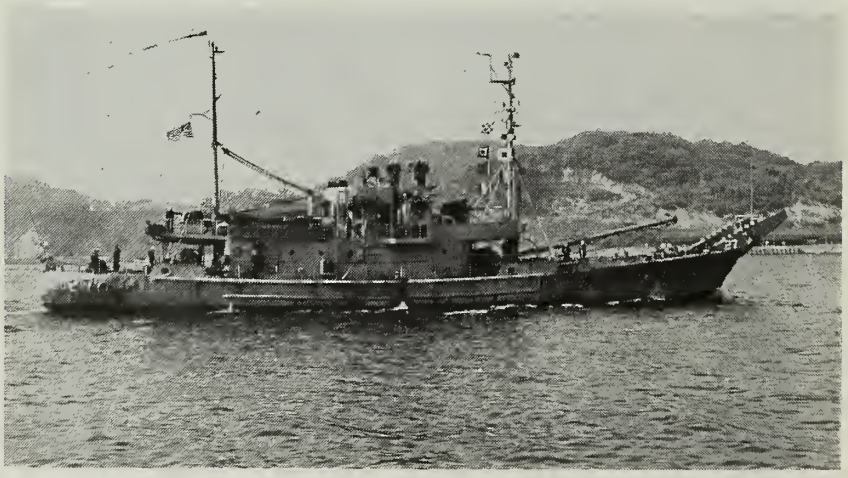
Additional weight is saved by the simplified pilot ejection seat, weighing only 30 pounds.

Heavy Attack Squadron

NAS Jacksonville has become the proud possessor of its first heavy attack unit with the recent disestablishment of Patrol Squadron Three and its recommissioning as Heavy Attack Squadron One. In addition, four composite squadrons at NAAS Sanford, Fla., which have already been performing the heavy attack mission with AJ *Savage* aircraft, have also been redesignated as heavy attack units.

The new attack squadrons will be outfitted with 70,000-pound A3D *Skywarriors*, the largest and most powerful carrier jet bomber the Navy has. A3Ds are capable of flying at nearly 40,000 feet, with a speed in the 600-700 mph class and range enough to take them across the U. S. and back.

Flying from either carriers or advanced land bases and refueling aloft, the squadrons can strike rapidly deep into the heart of any continent with potent munitions.



HOMEWARD-BOUND PENNANT flies from mainmast of *USS Mulberry* (AN 27) as she leaves Yokosuka Harbor for USA after five years in Far East.

Altair Replenishes Fleet

Six months and 27,344 nautical miles after leaving the United States, the general stores issue ship USS *Altair* (AKS 32) returned to Norfolk Naval Base after participating in 220 replenishments with the Sixth Fleet in the Mediterranean.

While steaming side by side in formation *Altair* transferred over 2100 tons of material to ships of the Sixth Fleet.

A close-hand view of transfer at sea was provided for several distinguished visitors who were transferred to and from *Altair* while underway.

Among the important personages transferred by a boatswain chair running across a highline between ships were: Under Secretary of the Navy Thomas Gates; Assistant SecNav for Material Raymond Fogler; Assistant SecNav for Personnel Albert Pratt and the American Ambassador to Spain, John Lodge.

The visitors gained a better insight into the current procedures for keeping a Fleet at sea without local base support by taking a tour of the ship's holds and issuing stations. After a short briefing of the role of the AKS they witnessed a routine breakout of material from the holds to topside transfer stations prior to *Altair's* rendezvous for replenishment. They also saw that the work of AKS crewmen is continuous, for no sooner is one replenishment completed than work is begun on the next.

Between runs, *Altair* visited eight ports in five countries.

This was the AKS's third tour of duty with the Sixth Fleet since being recommissioned in late 1953.

Kodiak Attack

Blank cartridges, sentries' challenges, and the atmosphere of sudden and unexpected attack lent an aura of reality to the annual Base Defense exercises completed at the Naval Station, Kodiak, Alaska.

Full-scale anti-submarine warfare and reconnaissance were featured between the *Neptune* patrol bombers of the Kodiak-based Patrol Squadron Two and the 'aggressor' submarine USS *Perch* (ASSP 313) from San Diego during the opening phase of the exercises.

Evasive tactics of the submarine almost won the first phase of the operations for the 'aggressor' forces until the patrol planes spotted the submarine as she surfaced to launch the Underwater Demolition Team and the Marine Reconnaissance Platoon in rubber boats.

Though theoretically "destroyed," the submarine continued launching operations, and the Marine "beach jumpers" landed well outside the station's boundaries and successfully hiked through the rugged Kodiak terrain to capture their objective.

Other objectives for the 'aggressor' forces were simulated atomic and guided missile installations at Kodiak.

The opening phase of the exercise was designed to test Kodiak's ground defense organization against highly specialized amphibious assault as well as to test the effectiveness of the Patrol Squadron's anti-submarine techniques.

The closing phase of the exercise pitted sailors and station Marines guarding vital installations of the station—that included docks and fuel piers—against swift-striking frogmen and recon units launched well offshore by submarines.

Frogmen of the Underwater Demolition Team conducted underwater reconnaissance of the dock facilities of the station for two days and finally struck in the early morning hours of the third day. Their attack was aimed to simulate the blowing up of piers and fuel storage facilities.

The other unit of the 'aggressor' forces comprised the Marine Reconnaissance Platoon that struck in well coordinated simultaneous attacks at communications and other vital station installations.

The entire closing phase of the exercise was carried out in weather conditions that ranged from fair to extremely adverse. Rain, snow and sleet were driven by high winds and hampered 'aggressor' and defending forces in what proved to be an authentic test of personnel, training and equipment.

Maneuvers of this type are part of Kodiak's continuous training.

Rockets Launched from Planes

Using rockets vertically launched from aircraft, the Office of Naval Research has demonstrated the possibility of another method of upper-atmosphere research.

In tests at NAS Chincoteague, Va., rockets launched vertically at 30,000 feet from a Navy *Banshee* fighter plane reached an altitude of approximately 90,000 feet. This new rocket-aircraft method, called "Rockair," will afford a practical and inexpensive tool for research observations at high altitudes.

The plane-carried rockets do not attain the altitudes reached by large rockets. During the early tests, only cosmic ray studies were made. There are, however, many possible applications of the new plane-rocket method.

The Navy has been using balloons for high-atmosphere research since 1947, when its "Skyhook" program was developed.

Another technique, "Rockoon," which employs the Skyhook balloon to carry "Deacon" meteorological rockets aloft, has proved a valuable instrument for studies in the auroral regions. Its use as a low-cost vehicle has been demonstrated in the annual summer expeditions in northern waters since 1952. The small Deacon rockets were fired from the balloon at an altitude of 70,000 feet, above the drag of the earth's atmosphere.

The chief advantage of the new-plane-rocket method over the balloon-rocket technique is the controlled-directional launching possible from aircraft.

The new rockets, smaller than the Deacon rockets, were provided by the Navy Bureau of Ordnance. The Bureau of Aeronautics, which sponsored the project, assisted ONR by supplying both technical aid and personnel.

Plans for the immediate future call for the use of these vertically-launched rockets for upper-wind studies and for further research.

WHEELS AT THE WHEEL—Operating the controls of *USS Nautilus* (SSN 571) are (Back to front) VADM Holloway, USN; SecNav Charles Thomas; and RADM Lewis Strauss, USNR, as RADM Watkins, USN, directs the operation.

Nucleonic Navy

Top Navy leaders had a first hand view of operations in USS *Nautilus* (SSN 571) when they made a cruise in the first atomic submarine. In fact, some of them operated controls as she was put through her paces.

With RADM Frank Watkins, ComSubLant, as diving officer, three eminent sailors sat in the control seats. SecNav Charles Thomas operated the stern planes, VADM Holloway, the Chief of Naval Personnel, was at the wheel, and RADM Lewis Strauss, USNR, Chairman of the Atomic Energy Commission, was at the bow planes.

The sub was taken down to depth, and maneuvered by this quartet. Under the watchful eyes of ComSubLant, Admiral Holloway steered *Nautilus* through steep dives, climbs and turns. SecNav Thomas and RADM Straus used the fingertip controls to handle the bow and stern planes.

When the four had completed their watch, and had been relieved by *Nautilus* crewmen, they and other high officials were briefed on latest developments in the Navy nuclear field by RADM H. Rickover, USN, the Chief of the Naval Reactor Branch, AEC.

Purpose of the cruise was to indoctrinate Navy and AEC officials in advanced underseas maneuvers.

FAMILY INDOCTRINATION DAY at NAS Corpus Christi included show by the men who keep planes flying. Here jet is 'pulled apart' for maintenance.

Family Indoctrination Day

Wives, youngsters, friends and relations of Advanced Training Unit 201 personnel at NAS Corpus Christi, Texas, were welcomed aboard the air station for "Family Indoctrination Day."

Theme for this Indoctrination Day was "Get Acquainted" — and that is just exactly what these dependents did.

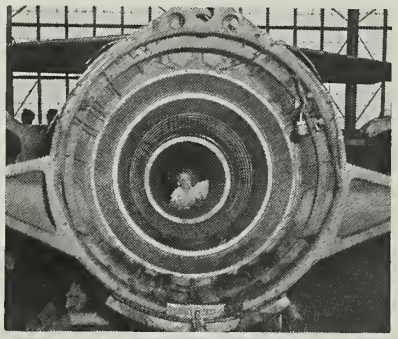
After a breath-taking airshow they were taken on a tour through Hangar 56 to view the displays set up by the various departments of the unit.

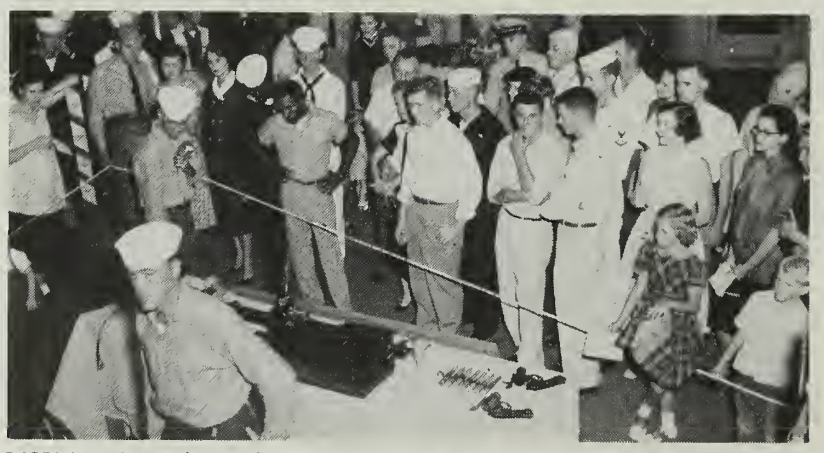
Each department had a complete display showing every detail of their normal work-day routine and narrators were on hand to explain how each part of a jet plane functions and what each of the men in the Unit did to maintain these aircraft.

The displays helped to illustrate the all-important tasks husbands, fathers and sons carry out to keep the Navy's aircraft flying.

To wind up festivities refreshments were served and dance music was played by a Navy combo.

BIG HOLE amazes little boy peeping through tail assembly of jet while getting squared away on Dad's job.





DISPLAYS LIKE this ordnance table helped illustrate the important Navy tasks that husbands, fathers, and sons carry out in field of aviation.

Wins Rhodes Scholarship

For the first time since 1950, a Naval Academy graduate has been selected as a Rhodes Scholar. The successful competitor for the study grant is Ensign Robert B. Pirie Jr., USN, son of RADM R. B. Pirie, Chief of Staff and Aide to the Commander in Chief, U. S. Atlantic Fleet.

Ensign Pirie, as one of the 32 Rhodes Scholars selected annually from the United States, will receive approximately $1692 to pay for advanced study at Oxford University's School of Philosophy, Politics and Economics.

Like the other successful Rhodes competitors, Pirie won his scholarship on the basis of one or a combination of the following qualities: literary and scholastic ability and attainments; qualities of manhood, truthfulness, courage, devotion to duty, sympathy, kindliness, unselfishness and fellowship; exhibition of moral force of character, and of instincts to lead and to take an interest in his fellows; and physical vigor, as shown by fondness for and success in sports. Some definite quality of distinction, whether in intellect or character, is the most important requirement for a Rhodes scholarship.

A 1955 graduate of the U. S. Naval Academy (where he stood number 10 in his class), Enign Pirie is currently serving in USS *Meredith*.

Awards in *Mahoning County*

She's only an LST with an enlisted allowance of 84—and that's not large as Navy ships go—but USS *Mahoning County* (LST 914) wound up 1955 with an awards ceremony worthy of a bigger ship just before she shoved off from Long Beach, Calif., for another tour of duty in WesPac.

The ceremony, which involved 47 per cent of *Mahoning County's* enlisted crew members, got underway with the presentation of twenty Good Conduct Awards. Twelve of these were first awards, five were second awards and three were third awards. Then 21 of the LST's crewmen received new rating "crows," ranging from one first class through four seconds and 16 thirds.

LT Lionel E. Wells, USN, skipper of LST 914, topped off his ship's big day by swearing in Bobby M. Frederick, CS3, USN, for a second hitch.

Some Pointers on Leadership for Navy's Junior Officers

The question of leadership on all levels is of continuing interest and importance to the Navy, and ALL HANDS *recognizes the vital importance that leadership plays today, more important, perhaps, than in any other peacetime period.*

For the first time in the history of our peacetime Navy, for example, it has been necessary to induct men into the Navy by Selective Service. Could leadership, or its lack, be one of the reasons?

RADM H. A. "Red" Yeager, USN, *Assistant Chief of Naval Personnel for Education and Training, has some ideas on the subject which may be found in excerpts from a speech he gave the recent OCS graduating class (a high percentage of whom were former enlisted men).*

THERE IS NO substitute for competence. When we are fat with peace and when our ships are cruising in quiet waters men may list fairness, kindliness and similar qualities as what they most desire of officers. But come war and heavy winds, they look for competence — ability, knowledge and know-how.

An officer must think of his men; but he must think of them as Navymen. He must be able to lead them in military and naval subjects. This means he must know more than they do and he must be able to communicate his knowledge to them as well as his orders and desires.

Obviously at first your knowledge of what your men must know will be limited. Do not become downhearted by your inadequacies. Thousands before you had the same experience. Use your mistakes to learn.

You must know your men and take care of your men! These are the cardinal rules. But I add two more: Know what your men are supposed to know and help them learn it.

Look over — better yet, study — the Navy Training Manuals which your men must study for advancement in rate. These manuals are simply and clearly written and well illustrated. You can learn the details of your divisional and departmental duties from them. More important, you can learn what your men must learn and do, and then help them to do it. You can use the same terms, the same expressions, and the same approaches to the work they are taught to use in their schools and texts. For these Navy training courses are written by enlisted men and ex-enlisted men as well as by officers and technical experts. They reflect the Navy as seen and operated by its "doers" — the bluejackets.

Never forget that, as junior officers, you are closest to the troops, you are the officers they know and know well — as a matter of fact, in 30 days they'll know you better than you think they do. This leads me to some frank, very frank, comments.

The Navy has been, since its inception, an organization that draws its real strength from the inner conviction of its members that they are in the finest service in the world. This moral strength, which is seldom outwardly expressed, has culminated in the finest fighting force ever assembled in the history of the world.

Yet all is not a rosy picture. The Navy into which you are now going for your first assignment has a number of serious problems facing it. The failure of a higher percentage of our first cruise men to reenlist after the first four years is serious. The Navy is getting a reenlistment rate of only about 4 per cent. Yet the mobilization planning of the Navy requires double that rate and more, if we are to meet our requirements.

There are many reasons which cause our first cruise men to leave the Navy. The urge to leave for the joys of civilian life — the influence of wives and sweethearts who dislike the separations of naval life — the failure of some of our commanding officers to provide for positive corrective action — all of these are reasons — for this serious loss of well-trained first cruise men.

The Navy has taken many corrective actions to improve the present situation. Unfortunately, a major reason for the failure of our first cruise men to reenlist has been the junior officers. Lord Jervis, Earl of St. Vincent, a man who rebuilt the Royal British Navy after it was torn by mutinies, in time to hand it over to Lord Nelson as the greatest fighting force the world had seen, said: "It is not the men I fear, it is the loose talk of the officers in the cabins and wardrooms."

Take care of your men — they are the most precious resource our Navy has. Guard their welfare as you do your own and there will be no reenlistment problem.

What Makes A Good Petty Officer?

Everyone in the Navy can recognize a petty officer by the crow on his arm and the stripes that go with it, but just what are the traits and responsibilities of a petty officer?

To get the answer to that question, ALL HANDS went to the office of the Chief of Naval Operations, where the boss himself, Admiral Arleigh A. Burke, CNO, took time from a packed schedule to draft the following definition of a good petty officer:

- The good petty officer knows what his uniform, his Navy and his flag stand for. He is a proud member of the best fighting organization in the world, the United States Navy.
- The good petty officer is concerned with his men's individual welfare and their future. He pats them on the back when they're good and he gives them hell if they need it. That way he makes better men out of good men and he makes progress. He teaches his trade. He encourages. He inspires. He is consistent. He is competitive. His outfit is the best. He assumes responsibility willingly. He gives his men responsibility. He passes the word. He creates team spirit.
- The good petty officer puts his heart and his soul into his work. He radiates enthusiasm and spark. He knows the Navy. He knows his rate and he genuinely appreciates what he knows."

After rereading his definition the Admiral had one more thing to add and said, "Never in the Navy's history have its petty officers, as a group, been more important or more impressive. The Navy is only as good as its petty officers and it is significant that the U. S. Navy is the world's best."

THE BULLETIN BOARD

Hospital Corps School Has Openings for Candidates For Duty under Instruction

There is at present a critical shortage in the Group X (medical) ratings and additional candidates are urgently needed for the basic Hospital Corps school, Class A. If you are qualified, it is suggested you consider the advantages of making application.

All graduates are first assigned to duty in naval hospitals in the continental United States for a minimum of six months. On completion of this six-month training period, about 70 per cent are retained in hospitals for further training and duty and the remainder are ordered to sea duty. About 10 per cent of the total number of personnel are assigned to the Fleet Marine Forces.

Here are the eligibility requirements. Applicants must:

1. Have 24 months' voluntary obligated service on the date of entry into school and, if a Naval Reservist, a signed agreement to remain on active duty during this period.

2. Have been found temperamentally suited for duty in Medical Rating Group X by a medical officer.

3. Have normal color perception.

4. Have a combined GCT/ARI of 100. (Requests for waiver of this requirement should be forwarded to the Chief of Naval Personnel.)

Requests for this duty from personnel in the general apprentice groups who have not completed a Class A service school should be forwarded via your commanding officer to the Chief of Naval Personnel (Attn: Pers B2256), via the Chief of Bureau of Medicine and Surgery (Attn: Code 3441).

If selected, you will be ordered on a "duty under instruction" basis, but submission of a request does not, in itself, guarantee that you will receive an assignment.

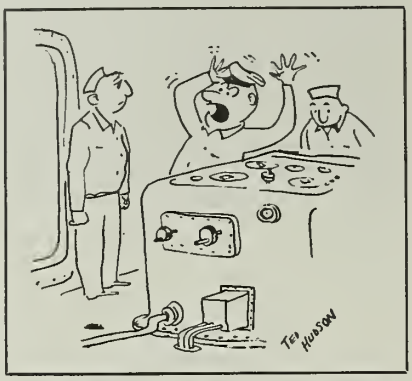
Submariners Take Top Reenlistment Honors

Submariners have always known a good thing when they see it and the men of Pacific Fleet Submarine Force have certainly proved that they do—the Pacific Fleet submariners walked off with top reenlistment honors over all other type commands throughout the Pacific for a nine-month period.

The Submarine Force stood first in the entire Pacific Fleet in all three reenlistment categories; first cruise, career and over-all reenlistments.

More than half of all Pacific Submarine Force personnel shipped over during the quarter ending last September. First reenlistments scored 32 per cent while 96 per cent of career submariners took the oath again — a good batting average in any man's league.

All-Navy Camic Cartoon Cantest—
E. F. Hudsan, LTJG, USNR



"The computer's stapped. Quick, Smedley, get me a pencil and paper—!"

New Course for Recruiters at Great Lakes Journalist School

A four-week recruiters' journalism course, Class C-1, has been established at the Class A Journalists School, U. S. Naval Training Center, Great Lakes, Ill. The course, open to CPOs and POIs of any rating, is designed to train recruiting service personnel in recruiting publicity techniques, basic news media, and the use of various media in connection with the promotion of public relations.

A capacity of 40 has been set for each class, and quotas have been made available to main recruiting stations.

Many Ex-Regulars Can Reenlist In Their Former Rates If Discharged Less Than a Year

Former Regular Navymen who have been discharged more than three months but less than a year can still reenlist in their former rate. The instruction which authorizes this type reenlistment has been extended to 30 Jun 1956.

Personnel eligible for reenlistment under this instruction are those who held one of the following rates at the time of their discharge:

CPO: RD, SO, GS, MN, RM, CT, DM, AQ, GF.

PO1: QM, RD, SO, FT. GS, MN, ET, TE, RM, CT, JO, DM, MU, MM, MR, BT, EM, IC, PM, SV, CE, BU, SW, UT, AT, AQ, GF, AE.

PO2: QM, RD, SO, TM, GM, FT, GS, MN, ET, IM, OM, TE, RM, CT, YN, PN, MA, SK, DK, CS, SH, JO, DM, MU, MM, EN, MR, BT, EM, IC, ME, FP, DC, PM, ML, SV, CE, CM, BU, SW, UT, AD, AT, AO, AQ, GF, AC, AB, AE, AM, PR, AG, TD, AK, PH, HM, DT.

PO3: QM, RD, SO, TM, GM, FT, GS, MN, ET, IM, OM, TE, RM, CT, YN, PN, MA, SK, DK, CS, SH, JO, DM, MU, MM, EN, MR, BT, EM, IC, ME, FP, DC, PM, ML, SV, CE, CD, CM, BU, SW, UT, AD, AT, AO, AQ, GF, AC, AB, AE, AM, PR, AG, TD, AK, PH, HM, DT.

More POs Appointed Warrants, WO Selection Board to Meet

Eight more senior petty officers have been selected for advancement to W-1 with promotions effective on acceptance.

The eight men, five chief petty officers and three first class petty officers, bring the total of men advanced to 238 since the warrant officer eligibility list was released a few months ago.

At present the Bureau of Naval Personnel is processing the flood of applications for advancement to W-1 which were due in by 1 Oct 1955. Plans call for a warrant selection board to meet in April to establish a new warrant list. Promotions will be made from the current list until 30 Jun 1956.

BuPers Manual Adds Change On Permanent Appointments

The Navy's revamped program for permanent appointment to warrant officer has been promulgated in Change 18 to the *Bureau of Naval Personnel Manual*. The same change provides also for original permanent appointment to the grades of ensign (2300) in the Supply and Administrative Section of the Medical Service Corps, or to the grades of ensign and lieutenant (junior grade) (2300) in the MCS's Optometry, Pharmacy and Medical Allied Sciences Section.

The 14 articles included in Change 18 make up an entirely new Section Three of Chapter One, Part C, and will be followed by additional articles to be published at a later date.

Change 18, now being distributed, also includes a number of other revisions to the manual.

Naval Chronology of WWII Listed in New Reference History

Fo'c'sle sages who like nothing better than a blistering argument concerning the minutiae of bygone events can make no better investment in ammunition than the new *United States Naval Chronology, World War II*. They willl find a real bargain, full of dates and facts.

Prepared by the Naval History Division, Office of the Chief of Operations, this 214-page volume which may be obtained from the Superintendent, Washington, D. C., for $1.75, will also be an invaluable aid to anyone who wants to know the facts, no matter what the occasion.

This excellent reference book spans the six years from 1 Sep 1939 when the Germans marched into Poland until 2 Sep 1945 when the Japanese signed surrender documents on board USS *Missouri* (BB 63). Its day-by-day record of the war covers significant naval events in all theaters, as well as other events of importance. It cites the day U. S. naval ships of any size were sunk or damaged, and many enemy ships sunk by U. S. forces. Included with type of ship and agent causing the casualty is the geographic location as exactly as it could be determined. With index and two appendices.

HOW DID IT START

Tecumseh

Tecumseh, the bronze Indian warrior who presides over the Naval Academy, has endeared himself to Academy graduates as the "God of 2.5" — a passing mark; and he is known to the rest of us as a symbol of battle, via pictures of midshipmen giving him a fresh coat of warpaint just before important athletic events.

Beginnings of the Tecumseh tradition are not so well known, however. The original of today's bronze warrior was the figurehead of USS *Delaware*, a Civil War Frigate, and was intended to represent Tamenend, chief of the Delawares and a lover of peace. *Delaware* was sunk during the war, but was raised during a postwar cleanup of obstructions in Virginia rivers.

RADM Peter C. Asserson, CEC, USN, who was in charge of the cleanup, presented the figurehead to Annapolis in 1866, and midshipmen of the sixties soon shrouded the peaceful Tamenend under a series of warrior names, including Powhatan, King Philip, "Old Sebree" (after MIDN, later RADM Sebree, because of their resemblance to each other). The name Tecumseh finally became fixed, however, and even MIDN Sebree was known to his classmates as "Tecumseh."

In 1906, while preparing to move the figurehead from a building to the present location before Bancroft Hall, it was discovered that Tecumseh was in an advanced state of decay. Repairs were undertaken, however, and the figurehead was good for another 24 years.

Finally, the Academy class of 1891 put up the money and effort to have a bronze replica cast at the Naval Gun Factory in December 1929. Less than six months later, on 31 May 1930, the bronze Tecumseh was presented — to continue his reign as "God of 2.5," "God of Victory" and symbol of courage, fortitude and patience.

LTJGs Need Physical Exam for Promotion Eligibility

Officers eligible for permanent promotion to the rank of lieutenant (junior grade) are reminded that they are required to have physical examinations *before* they become eligible for promotion, in accordance with BuPers Inst. 1426.1. BuPers Notice 1426 (of 30 Nov. 1955) also points out that there are many officers who became eligible for permanent promition to LTJG during the years 1954 and 1955 whose professional qualifications have been established but who are lacking the certification of physical qualification by a formal board of medical examiners.

The notice directs commanding officers to order eligible personnel to appear before a formal Board of Medical Examiners about six weeks before the date on which the officer becomes eligible for permanent promotion to LTJG. It also points out that submission of Standard Form 88, either alone or with a copy of the officer's orders containing a medical officer's endorsement, does not meet the requirements of Chapter VIII, Naval Supplement, *Manual for Courts-Martial* (which states that the Judge Advocate General must be forwarded a complete, authenticated Record of Proceedings for all formal medical boards convened to examine promotion candidates).

Promotion Selections for Active Duty Lts exceed Two Thousand

A total of 2095 lieutenants on active duty have been selected for temporary promotion to lieutenant commander.

Of these, 1906 were Regular Navy and Naval Reserve lieutenants of the line. Six hundred of the unrestricted line officers will be promoted to fill existing vacancies as soon as they qualify physically and professionally and are confirmed by the Senate. Further promotions will be made as vacancies occur and as officers qualify.

There were 155 officers of the Supply Corps and 34 of the Civil Engineer Corps also selected for promotion. These officers will be promoted as vacancies occur for their unrestricted line running mates.

Report on USNR for Navymen Who Have Service Obligations

LOTS OF CONFLICTING rumors have been going the rounds concerning the Navyman's "obligation" under the Universal Military Training and Service Act. Many sailors have gotten the wrong impression about service in the Naval Reserve after their Regular Navy tours are over.

Here's the picture, presented as directly and briefly as possible, on what happens when and if you join the Reserve—the obligations incurred, the advantages and disadvantages.

First of all, if you joined the Navy for the first time before 19 Jun 1951, you have no obligation to join the Reserve unless you want to. Membership is voluntary on your part.

However, if you first joined the Navy between 19 Jun 1951 and 9 Aug 1955, inclusive, you acquired an eight-year obligation under the UMT&SA. Your status is *not* changed by the Reserve Forces Act of 1955.

Navymen who first entered military service, under age 26, on or after 10 Aug 1955 incur a six-year obligation under the provisions of the Reserve Forces Act, Public Law 305 (84th Congress).

This article applies to those who have incurred an eight-year obligation. If you have a six-year obligation under the new law, you should *read the accompanying article on page 43.*

Ready and Standby Reserve

No doubt you have heard a great deal of talk about the Ready and Standby Reserve. All you need to know about these two categories is that placement in the Ready and Standby Reserve determines your vulnerability for recall to active duty.

If you find yourself in the Ready Reserve, you may assume that you would be ordered to active duty before a man in a similar rating in the Standby Reserve. As in the past, orders to active duty will be based upon the needs of the service. If, for example, you are a Standby Reservist—an ET2, let us say—at the time Congress declares a state of emergency or war, you will be vulnerable for active duty after all available ET2s in the Ready Reserve have been ordered to active duty.

If you're concerned that membership in the Naval Reserve will conflict with your personal affairs because of training requirements, you are worrying needlessly. Active participation in Naval Reserve drilling units is strictly voluntary. However, such participation offers opportunities for further training and advancement.

The amount of participation required of a Naval Reservist varies. If you are in the Ready or Standby Reserve in the "active status pool" (that is, you are not voluntarily participating in a drilling unit), you will not be required to attend drills or take part in annual training duty.

Drilling Units

If you are in a "drill pay status" (receiving money for attending drills), you will be required to attend drills and take part in annual training duty so long as you remain a member of your unit.

The number of drills required depends upon the program in which you are enrolled. As an ET, if you join one type of unit, you will be required to attend 48 drills and take part in a two-week training cruise each year. In addition to the Electronics program, these requirements have been established for the Surface, Submarine, Aviation, Naval Security Group, Seabee, Advanced Base and Selective Service programs. Other programs schedule 12 or 24 drills each year. Two-week annual training duty is required of all members of pay units.

Membership in a drilling unit—while advantageous to both the Navy and to you—is not compulsory; it can be accomplished only at your request.

Call To Active Duty

What about being called to active duty? There's little possibility that you as a Reservist will be called to active duty involuntarily, short of an emergency, now or in the near future if you join the Naval Reserve.

It is well to remember, however, that—if Congress declares a war or national emergency—*any Reservist* can be ordered to active duty. This authority will continue until six months after the war or emergency ends. Even Retired Reservists can be ordered to active duty under such circumstances. This, however, is not a new provision.

Who—and Why?

What sort of people make up the Naval Reserve? Most of the officers and administrative personnel in the Reserve Training Centers have served on active duty in a variety of billets and have sea-going experience to back up their qualifications.

They have continued in the Naval Reserve for the same reasons you are now considering. Many sign up because they don't want to sever ties completely with the Navy. They would probably never admit it, but they like the comradeship.

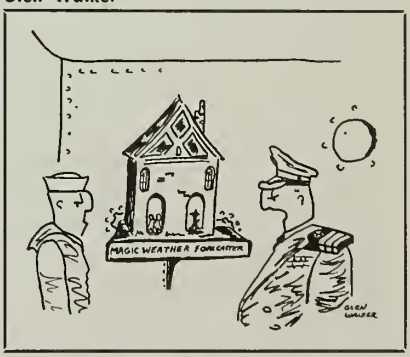
Others enlist because they follow much the same reasoning; they want the extra training—which won't hurt them in their civilian vocation, either. Others think it's their duty.

Some like the idea of the two-week training duty. They enjoy taking time out for a couple of weeks as sea-going sailors during the summer. On their first voyage they learn that theirs is a "working cruise" but most sailors are eager to repeat their

All-Navy Comic Cartoon Contest—
F. K. McVicker, SKI, USN

"Get in step, Jones."

All-Navy Comic Cartoon Contest—
Glen Walker



". . . and then you threw what out-dated barometer over the side?"

experience the following year.

Some are influenced by the pay, advancement opportunities, and retirement benefits available to Reservists.

All these men are in the minority in most training centers at the present time, however. Most Reservists today are in pay grades 1 and 2 and have enlisted for entirely different reasons.

Like you, when you graduated from high school, these young men know they face military service and training in one form or another. They prefer the Navy to the other services and, at some time between the ages of 17 and 18½, they joined the Naval Reserve. They may request active duty with the Navy when—and, currently, even before — they receive their pre-induction notices. Until that time comes, they are acquiring a naval background and preparing for advancement. At present, they will be required to serve not more than 24 months on active duty.

"Don't get excited, they're just remodeling."

How will you fit into the scheme of things if you decide to enlist in the Naval Reserve? What happens? Where will you stand?

Reserve Pay Billets

For one thing, you may not find a billet in a pay unit. Because the demand is frequently greater than the supply, a recent policy has been established to make sure that these billets go to Reservists who are available for active duty in the event of an emergency.

This change was introduced in order to meet the basic mobilization requirements within available funds. It does not reflect nor anticipate any change in the international situation.

In general, priority for a pay billet will be given to a qualified Ready

If You First Joined the Navy after 10 Aug 1955, Check Your Status

If you joined the Navy for the first time, while under age 26, on or after 10 Aug 1955, you have a six-year military obligation under the Reserve Forces Act of 1955, Public Law 305 (84th Congress).

This applies to all Regular Navy and Naval Reserve men, as well as those accepting initial appointment or entering officer candidate type programs. The provisions of this Act, as set forth in NavAct 4, do not apply to women.

(The status and obligations of all who became members of the armed forces between 19 Jun 1951 and 9 Aug 1955, inclusive, remain unchanged. Such personnel continue to have an eight-year obligation, which is described in detail in the accompanying article.)

Men who join the Navy for the first time on or after 10 Aug 1955 have three methods by which they may fulfill their service obligations under the new law:

- Enlist in the Regular Navy for six years.
- Enlist for a minority cruise or four years in the Regular Navy. This method requires a total of five years of combined active duty and satisfactory service in the "Ready Reserve" with the remainder of the obligation in the "Standby Reserve."
- Enlist in the Naval Reserve for six years. This method requires Reservists to spend two years on active duty plus four years on inactive duty in the Reserve. At least three of these inactive duty years will be in the "Ready Reserve," one may be in the "Standby Reserve."

Until enactment of the new law, initial enlistments in the Naval Reserve were being accepted only from young men between the ages of 17 and 18½. Now, however, any man between the ages of 17 and 31 — who meets current USNR enlistment standards and who has not been ordered to report for induction under the Universal Military Training and Service Act — may be enlisted in the Naval Reserve.

Draft-liable individuals between the ages of 18½ and 31 will be enlisted in the Naval Reserve for immediate active duty only. Men 17 to 18½ years of age may be enlisted for immediate active duty or for participation in a drilling unit — subject to the following conditions:

- Members of Reserve units satisfactorily pursuing a course of instruction in high school or college may have active duty orders delayed until such time as they cease to pursue their courses satisfactorily, graduate from high school, complete the current college year, or until they reach the age of 20 — whichever comes first.
- Reservists satisfactorily participating in a USNR unit may have their active duty orders delayed for not more than 12 months after enlistment so that they may advance to pay grade E-2. If the Reservist fails to take part satisfactorily in his unit, however, he will be ordered to active duty unless eligible for delay as specified for students in the preceding paragraph.

BuPers Inst. 1130.5 provides amplifying instructions in regard to implementation of the Reserve Forces Act. The directive sets forth the policy concerning maximum delay of active duty orders. Under this policy, no individual enlisted under the provisions of the Reserve Forces Act shall be ordered to active duty later than three years from the date of his enlistment unless he is enrolled in or selected for an officer candidate type program.

The policy concerning delay in active duty does not apply to men enlisting between the ages of 18½ and 31 who are liable for induction. They may be enlisted for immediate active duty only, without exception.

As further amplifying instructions are issued regarding the Reserve Forces Act, they will be given complete coverage in All Hands.

Reservist who is serving under an agreement to remain in a Ready status for at least one year or is not yet eligible for transfer to a Standby status.

If you have served on active duty in the past and are now contemplating joining the Naval Reserve, and since experienced men in any rating are in great demand, you may be sure of being welcomed with open arms at any Naval Reserve Training Center you visit. If the quota of available billets in pay status is filled, you will probably be placed in an associate non-pay status until a vacancy occurs.

Obligations and Benefits

Before discussing various rights and benefits of Naval Reservists, let's summarize briefly: If you served in the Navy before 19 Jun 1951 and have not incurred a service obligation, you don't have to join the Naval Reserve unless you want to.

If you enlisted in the Regular Navy for the first time on or after 19 Jun 1951, you must join the Naval Reserve (unless you reenlist in the Regular Navy) to fulfill your total obligated period of eight years.

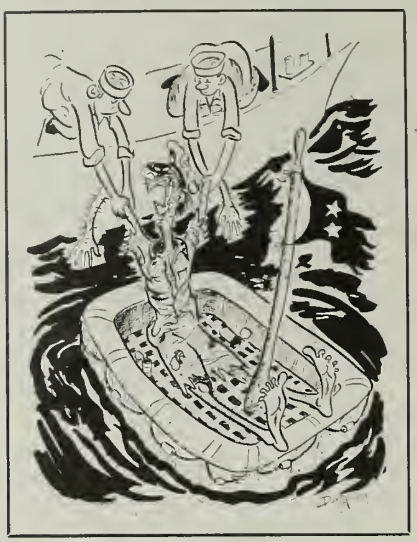
If you join the Reserve as an enlisted man, it will be for four years. You probably won't be called to active duty, but no one can really say for sure—that depends on the world situation. You may not be able to draw drill pay right away. If you join a pay unit, you'll have to attend 48 or 24 or 12 drills a year (depending upon the program you affiliate with) and go on two-week training duty.

If your personal affairs change so that you can't attend drills, you can drop out of your unit but you'll still be a member of the Naval Reserve until your enlistment is up. If you serve satisfactorily in the Reserve for 20 years, including the time you've already put in with the Regular Navy, you'll be eligible for retirement when you reach age 60.

Naval Reserve Retirement

Although you may no longer be serving on active duty, you need not relinquish one of the major advantages the Navy has to offer—the possibility of retirement with a comfortable income. The Naval Reserve retirement plan enables you to retire at age 60 after completing at least

All-Navy Comic Cartoon Contest—
W. P. Duensing, HM1, USN



"Where are the side-boys?"

20 years of "satisfactory Federal service," provided you also meet certain conditions.

The basic authority for the Naval Reserve retirement program is Public Law 810, 80th Congress. This law, together with certain changes required under the Armed Forces Reserve Act, is implemented by BuPers Inst. 1820.1, which is the roundup on Reserve retirement rules.

Here's the way the Naval Reserve retirement system works:

Any person who has completed 20 years of "satisfactory Federal service" (described below) as a commissioned officer, warrant officer, flight officer, or enlisted person in any of the armed services or their Reserve components is eligible upon application to receive retirement pay upon or after reaching age 60, subject to these conditions:

- The last eight years of qualifying service must have been served as a member of a Reserve component. It is not required that this eight years be continuous. Service on the Honorary Retired List subsequent to 1 Jul 1949 or in the Retired Reserve is not creditable for this purpose unless such service was on active duty.
- You must not be eligible for, or receiving, any other retired pay for military service.
- If you were a member of a Reserve component before 15 Aug 1945, you must have performed active Federal service during a portion of either of the following periods: 6 Apr 1917 to 11 Nov 1918 and 9 Sep 1940 to 31 Dec 1946.

Any person who meets the age and service requirements is eligible for Reserve retirement. Any former member who met the service requirements prior to separation from the service under honorable conditions is eligible for retired pay following attainment of age 60. Application should be submitted about six months before his eligibility date.

Service in any component of the armed services is creditable EXCEPT the following:

- Inactive and/or nonfederally recognized status of the National Guard and Air National Guard.
- Inactive Reserve Section of the Officers' Reserve Corps.
- Inactive Officers Section of the Air Force Reserve.
- Honorary Retired List, after 1 Jul 1949, or Retired Reserve except while serving on active duty.
- Service in the Public Health Service or temporary Coast Guard.
- Naval Militia service is creditable only between 16 Feb 1914 and 1 Jul 1918. Any National Guard service *is* creditable after 21 Jan 1903 if Federally recognized.
- Appointed aviation cadet service between 1935 and 1939 is not creditable for eligibility for retirement purposes but is creditable in determining rate of basic pay.
- Service as midshipman or cadet.
- Time on the inactive status list does not count for retirement purposes but is creditable in determining rate of periodic increases in basic pay.

Retirement Points

All service performed on or before 30 Jun 1949, with the exceptions noted above, is creditable for Reserve retirement with pay. Since 1 Jul 1949, a Reservist must earn at least 50 retirement points each anniversary year in order to have that year count as a year of satisfactory Federal service for retirement purposes.

Retirement points may be earned as follows:

- One point for each day of active duty or active duty for training, including travel time.
- One point for each duly authorized drill attended in either pay or nonpay status.
- One point for each period of

equivalent instruction or appropriate duty performed as authorized by the commandant or Chief of Naval Personnel.

• Point credit for completed authorized correspondence courses. The point credit varies in accordance with the course completed. For officers, these points are credited in 12-point units in the anniversary year in which the unit is completed. For enlisted personnel, the points for each course will be prorated by assignment and the points for an assignment will be credited as of the date the assignment is completed —but only after successful completion of the course as a whole.

• Fifteen points are credited for each year of membership in the Naval Reserve except when on the inactive status list or in the Retired Reserve or on active duty or active duty for training.

A maximum of 60 retirement points per year may be credited by means of all but the first of the items listed above.

The "anniversary year" for Naval Reservists who were members on 30 Jun 1949 will be 1 July to 30 June. For those members entering after 30 Jun 1949 or whose service was broken after that date, the anniversary year extends from the date of entry or reentry.

A Reserve officer may obtain a statement of his satisfactory Federal service no more than once a year by addressing a request directly to: Officer in Charge, U. S. Naval Reserve Officer Performance Recording Activity, Naval Reserve Center, Omaha 11, Nebr.

An enlisted Reservist may obtain information concerning his year of satisfactory service from the commanding officer of the unit to which he is attached or from the commandant of the naval district holding his record.

Rate of Retirement Pay

The rate of retirement pay is the number of accrued retirement points divided by 360 and multiplied by two and one-half times the applicable basic pay of the rank or rating in which retired. Maximum pay is 75 per cent of the basic pay. Pay on the retired list will be based on the highest permanent or temporary rank or rate in which service was satisfactory.

Points for retirement pay purposes are credited as listed below:

• Before 30 Jun 1949, 50 points are given for each year of inactive duty.

• After 30 Jun 1949, points are earned and credited as indicated in the paragraphs above—up to a maximum of 60 points (except that the maximum does not apply to active duty or active duty for training).

• One point is credited for each day of active duty and active duty for training, including travel time.

The official method by which retirement pay is computed is as follows: Add the total number of points earned as indicated in the three paragraphs above, divide by 360, then multiply by 2½ per cent and by the applicable monthly basic pay of the rank or rate in which retired, in order to compute your monthly retired pay.

Retirement pay commences on the effective date of retirement. This may be the first of the month after the date you reach age 60 or the first day of the month after date of application, whichever is later.

Reserve and Other Retirement Programs

Social Security benefits, other than those based on active duty credits for military service, and Civil Service retirement pay benefits may be received concurrently with Naval Reserve retirement pay.

The dual employment and dual compensation regulations relating to retired Reserve Officers are now being studied and a final decision is expected in the near future.

Neither pension nor disability compensation benefits from the Veterans Administration, nor Federal Employees' Compensation may be received at the same time Naval Reserve retirement benefits are received. Further, retired pay received under Public Law 810 may not be waived in order to receive pension or disability compensation from the Veterans Administration.

If you complete 20 years of satisfactory Federal service before you reach age 60, you have four possible alternatives:

• *Continue active membership:* This action increases the amount of retired pay by accruing additional points as well as by adding years of service which increases the basic pay upon which retired pay is based.

• *Request transfer to the inactive status list:* In this status, additional retirement points may not be accrued. However, this status does count for periodic basic pay increases. (Basic pay is increased by additional years of service.)

WHAT'S IN A NAME

Little Ship Many Rockets

Boxing fans have a phrase to describe a favorite little fighter which goes something like, "Pound for pound, he's the best fighter around." That phrase might also be given to the LSMRs of the Atlantic and Pacific Fleets, for they pack a wallop that is tremendous.

Nicknamed "Little Ship Many Rockets," by the men who sail them, the LSMRs can toss up a barrage of gunfire equal to that of five destroyers. They are armed with one 40mm antiaircraft gun, a 5-in. 38-cal. dual purpose gun, four 4.2 mortars and as many as 105 rocket launchers.

The LSMRs are direct descendants of LSMs, which were designated to land a combat load on the beach and to supply the beach after the original landing. However, the redesignated LSMRs, with their lethal firepower, are now assigned the mission of assault bombardment. Although they are designed for "saturation" fire to clear a beachhead ahead of assault troops, their fire can be amazingly accurate on smaller targets.

Over-all length of these "lightweights," is a little over 200 feet. However, they have a cruising radius well over 3000 miles. They usually carry a crew of four officers and 48 enlisted men, with a lieutenant as skipper.

Any other ships care to dispute the LSMRs' pound-for-pound claim?

• *Request transfer to the Retired Reserve:* Except while serving on active duty, no additional points nor years of service may be accrued in this status. However, an individual remains a member of the Naval Reserve and is thereby eligible for other benefits.

• *Resign or be discharged:* In this case, an individual resumes civilian status throughout. He is eligible only for retirement pay (providing he has satisfied the basic retirements) in the nature of a pension upon reaching age 60 and is not placed on the retired list. He is not eligible for any other benefits and is not subject to recall to active duty.

Obligations Of Retired Reservists

Retired personnel incur certain obligations. They are, of course, subject to the regulations of the Secretary of the Navy. They may be ordered to active duty in time of war or national emergency at the discretion of SecNav, but may be ordered to active duty in time of peace only with their consent.

All retired personnel are required to report changes of address to the commandant of the naval district in which they reside and to the Chief of Naval Personnel. They must keep the Commanding Officer, Navy Finance Center (Special Payments Division), Cleveland 14, Ohio, informed of any change in address.

Other Benefits For Reservists

Opportunities for Commissions — There are several ways in which enlisted Naval Reservists may attain commissioned status, and go on to careers in the naval service. Additional information on any of the following paths to a commission may be had from your commanding officer.

All-Navy Comic Cartoon Contest—
R. L. Dioz, JO3, USN

"A little off the top please."

• *Naval Reserve Officers' Training Corps (NROTC)*—If you are a high school senior or graduate between the ages of 17 and 21, male, and are on inactive duty, you are eligible to compete in the annual nationwide competitive examination for the Navy's college training program—the NROTC. Applications may be obtained at high schools, colleges, universities and your own Reserve organization, during September.

Reservists on active duty may compete in the Fleet competition for NROTC.

• *United States Naval Academy* —Reservists on inactive duty may compete for the 160 authorized billets open at the Naval Academy each year. Reservists on active duty may compete for appointment within another quota. If you want to try for an Academy appointment, you have to plan early. For example, to be eligible to enter the USNA class commencing in mid-1957, you must have been enrolled as a member of the Naval Reserve before 1 Jul 1956. You must complete and submit your application form (NavPers 2451) to the Chief of Naval Personnel *before* 1 Oct 1956. If your application is approved, you will take the examinations in March 1957.

You'll find the answers to your questions concerning your candidacy for the Naval Academy in two booklets which are available from your commanding officer or your district commandant. They are *Study Guide for Naval Reservists Preparing for the Mental Examinations for Admission to the U. S. Naval Academy,* (NavPers 15813), and *Regulations Governing the Admission of Candidates in the U. S. Naval Academy as Midshipmen and Sample Examination Questions,* (NavPers 15010).

• *Reserve Officer Candidate (ROC)*—If you are an enlisted Reservist attending college you may earn an officer's commission by enrolling in the ROC program. Applications should be filed at the Naval Reserve Training Center nearest your home.

• *Naval Aviation Cadet (NavCad)* —Qualified enlisted Reservists on active or inactive duty may apply for flight training as pilots in the NavCad program. Application should be made at any Naval Air Reserve activity.

Clothing Stores; Navy Exchanges— Reservists on inactive duty are authorized to make cash purchases from Clothing Retail Stores. The authority for purchases of items from Clothing Retail Stores is limited, however, to Reservists on inactive duty who are performing active duty for training or inactive duty training where the wearing of the naval uniform is required.

Reservists on active duty for more than 72 hours are entitled to full privileges at Navy Exchanges. When applying for an exchange identification card, make sure you have a copy of your active duty orders.

Uniform Allowances — Naval Reserve officers are eligible, under the provisions of the Armed Forces Reserve Act of 1952, for certain uniform allowances: Initial Uniform Allowance, not to exceed $200; Active Duty Uniform Allowance, not to exceed $100; Uniform Maintenance Allowance, not to exceed

Pay Schedule for Each Drill Period in USNR

PAY GRADE	Under 2 years	Over 2 years	Over 3 years	Over 4 years	Over 6 years	Over 8 years	Over 10 years	Over 12 years	Over 14 years	Over 16 years	Over 18 years	Over 22 years	Over 26 years	Over 30 years
E-1*....	$2.77	$3.29	$3.29	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55	$3.55
E-2.....	2.86	3.38	3.38	3.64	3.90	4.16	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42
E-3.....	3.31	3.90	3.90	4.42	4.68	4.94	5.20	5.33	5.46	5.46	5.46	5.46	5.46	5.46
E-4.....	4.08	4.68	4.68	5.33	5.59	5.98	6.24	6.50	6.76	7.02	7.28	7.28	7.28	7.28
E-5.....	4.84	5.46	5.46	6.11	6.37	6.76	7.02	7.28	7.54	7.80	8.06	8.58	8.58	8.58
E-6.....	5.86	6.24	6.24	6.50	7.15	7.41	7.80	8.06	8.32	8.58	9.10	9.62	9.62	9.62
E-7.....	6.88	7.41	7.41	7.67	7.93	8.45	8.71	9.10	9.36	9.62	10.14	10.66	11.18	11.18
W-1.....	7.31	8.37	8.37	8.37	8.89	9.54	9.80	10.19	10.45	10.71	11.23	11.75	12.27	12.27
W-2.....	8.83	9.36	9.36	9.36	9.62	10.14	10.66	11.18	11.67	11.93	12.45	12.97	13.49	14.01
W-3.....	10.09	10.79	10.79	10.79	11.05	11.31	11.57	11.96	12.48	12.74	13.52	14.27	14.79	15.31
W-4.....	11.10	11.83	11.83	11.83	12.35	12.87	13.39	14.04	15.08	15.60	16.12	16.64	17.16	17.68
O-1.....	7.41	7.90	9.88	9.88	10.40	10.92	11.44	11.96	12.48	12.48	12.48	12.48	12.48	12.48
O-2.....	8.65	9.14	11.18	11.18	11.70	12.22	12.74	13.26	13.78	13.78	13.78	13.78	13.78	13.78
O-3.....	10.87	10.87	11.70	12.48	13.52	14.04	14.56	15.08	15.60	16.12	16.64	17.16	17.16	17.16
O-4.....	13.34	13.34	14.30	14.30	14.30	15.08	16.12	16.64	17.16	17.68	18.72	19.24	19.76	19.76
O-5.....	15.81	15.81	16.90	16.90	16.90	16.90	16.90	17.68	18.72	19.24	20.28	21.32	22.36	22.36
O-6.....	19.76	19.76	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.84	23.92	24.96	26.00	27.04

* E-1 with less than 4 months' service receives $2.60.

$50 and payable for each four years of satisfactory service in a Reserve component. Complete information will be found in BuPers Instr. 7220.14.

Qualified enlisted Reservists are eligible for certain cash allowances, in the case of chief petty officers, or the furnishing of clothing in kind for personnel below pay grade E-7. Rules governing cash allowance or temporary issue of clothing in kind are contained in BuPers Instr. 1020.4.

Officers' Messes—Inactive Naval Reserve officers are eligible to make use of the facilities of commissioned officers' messes (open), except at a few locations where facilities are limited.

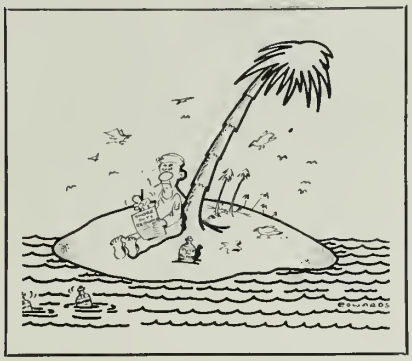
Wearing the Uniform—Members of the Naval Reserve on inactive duty may wear uniforms at drills and when performing authorized training duty with or without pay, and when performing necessary travel to and from drills or duty stations.

Inactive Reservists may not appear in uniform at unauthorized times, but may wear the uniform at appropriate "occasions of ceremony," including military ceremonies, memorial services, military funerals or balls, parades, and on Memorial Day. "Occasions of ceremony" are also interpreted to include meetings or functions of associations formed for military purposes, the membership of which is composed largely or entirely of honorably discharged veterans of the services or Reserve personnel.

Reserve officers engaged in a civilian capacity in the instruction of a cadet corps or similar organization at approved naval, military and maritime academies or approved educational institutions may wear Navy uniforms.

Privileges for Retired Reservists—Reservists who are retired with pay are entitled to such privileges as wearing the uniform on appropriate occasions, use of their Navy title, and the like. They may be accorded the privileges of Navy Exchanges, small stores, officers' clubs, enlisted clubs, and commissary stores—subject to the limitation of available facilities. Where facilities permit, certain categories of retired Reservists are eligible for hospitalization, inpatient and outpatient treatment at medical activities.

All-Navy Comic Cartoon Contest—
B. M. Edwards, LTJG, MSC, USN



In addition, retired personnel and their dependents may take one round trip per year on a space-available basis on an MSTS vessel, subject to payment of the applicable MSTS charges for space-available travel.

BuMed Discontinues Course on Special Clinical Services

The Medical Department correspondence course, *Special Clinical Services (General)* (NavPers 10702) has been suspended because some of the text material is obsolete.

Personnel currently enrolled in this course will be permitted to complete the course for credit, but all assignments must be submitted before 31 Jul 1956. After this date the course will no longer be administered.

Portions of the course will be reprinted at a later date under a new title. When the revised course is available the information will be printed in ALL HANDS.

All-Navy Comic Cartoon Contest—
R. J. Moesle, YNT3, USNR

"Gee this has all the material for a swell cartoon."

Temporary Officers and WOs To Be Considered by Boards For Permanent Commissions

Naval Reserve officers and temporary Regular Navy officers (enlisted men, chief warrant and warrant officers now serving under temporary commissions) may now be considered by a continuing selection board for appointment as permanent commissioned officers in the Regular Navy.

Officers in the following categories are eligible to apply for the Regular Navy Augmentation Program (women officers are eligible in those categories so designated):

1. Line (11XX) officers not above the grade of LT with a date of rank of 1 Jul 1953 and junior.
2. Line (13XX) officers not above the grade LTJG (except 1355 LTs).
3. Reserve officers (1395) currently undergoing flight training who will be commissioned in the Regular Navy on completion of flight training and designated as naval aviators if they are selected.
4. Restricted line (14XX), (15 XX), (16XX) officers not above the grade of LT with a date of rank of 1 Apr 1952 and junior.
5. Men and women officers of the Medical Corps (21XX), Chaplain Corps (41XX), Dental Corps (22 XX), Medical Service Corps (23XX) and Nurse Corps (29XX), not above the grade of LT.
6. Supply Corps (31XX) and Civil Engineer Corps (51XX) officers not above the grade of LT with date of rank of 2 May 1954 and junior.
7. Women line (11XX) and Supply Corps (31XX) officers not above the grade of LTJG.

All of the above officers must be citizens of the U.S. and have six months' active commissioned service.

Additional requirements regarding application for the program outlined in BuPers Inst. 1120.12D

Applications submitted in response to this Instruction will be considered by a continuing board which will meet at least once each quarter or once monthly if the number of applications warrant it. This board will be convened by the Secretary of the Navy, and the result of the boards' action will be published by BuPers Notice. Officers on inactive duty will be notified individually of their selection or non-selection.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instruction and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 91—Announced the convening of selection boards to consider women officers of the Supply Corps and Medical Service Corps of the Regular Navy in the grades of lieutenant and lieutenant (junior grade) for promotion to lieutenant commander and lieutenant respectively.

No. 92—Announced approval by the Secretary of the Navy of the reports of promotion boards which recommended officers of the Navy and Naval Reserve for temporary promotion to the grade of lieutenant commander in the Medical Corps and Dental Corps.

No. 93—Stated that naval personnel from Texas must pay poll tax of $1.75 in county of residence on enlistment to qualify to vote.

No. 94—Announced approval by the President of the reports of selection boards which recommended officers of the Navy and Naval Reserve for temporary promotion to the grade of lieutenant commander in the Medical Corps, Supply Corps, Chaplain Corps, Civil Engineer Corps, Dental Corps and Medical Service Corps.

No. 95—Announced approval by the President of reports of selection boards which recommended officers of the Navy and Naval Reserve for promotion to the grades of lieutenant commander and lieutenant (Wave).

No. 96—Announced approval by the Secretary of the Navy of the reports of promotion boards which recomended officers of the Navy and Naval Reserve for temporary promotion to the grade of lieutenant in the Medical and Dental Corps.

"Says all he did was cross a wire or two!"

No. 97—Extended greetings for the new year to all Naval and Marine Corps personnel from the Secretary of the Navy.

No. 98—Stated that, as of 1 Jan 1956, the Navy assumed responsibility for procuring certain bonds covering positions which require occupants to be bonded.

No. 99—Extended greeting for the new year to men and women of the Naval and Marine forces throughout the world from the Chief of Naval Operations.

No. 100—Announced approval by the President of the report of a selection board which recommended officers of the Navy and Naval Reserve for temporary promotion to the grade of lieutenant.

No. 101—Announced approval by the President of the report of a selection boards which recommended officers of the Regular Marine Corps and Marine Corps Reserve for temporary promotion to the grade of captain.

No. 102—Announced approval by the President of the reports of selection boards which recommended men and women officers of the Navy and Naval Reserve for temporary promotion to the grade of lieutenant in the Medical Corps, Supply Corps, Chaplain Corps, Civil Engineer Corps, Dental Corps, Medical Service Corps, Nurse Corps, lieutenant (LDO) in the Civil Engineer Corps and Supply Corps, lieutenant commander in the Supply Corps and Medical Service Corps.

No. 103—Announced the convening of a selection board in April to recommend eligible male enlisted personnel and warrant officers of the Regular Navy for temporary appointment as ensign USN line (Aviation, Ground). Deadline for application is 15 February.

BuPers Instructions

No. 1080.17 — Requested that naval hospitals and ships submit copy of NavPers 501 to the Chief of Naval Personnel.

No. 1306.43A — Provides instructions for the assignment of naval aviation cadets failing to complete the flight training program.

No. 1306.55—Publicizes the need for additional candidates for the Basic Hospital Corps school, Class A, and invites requests from eligible personnel.

No. 1540.30 — Submits to certain commandants information in the form of a planning guide to aid in establishing U. S. Naval Schools, Advanced Base Degaussing (Functional) in the event of mobilization.

No. 1610.9—Directs incorporation into all training programs the appropriate areas of the Report of the Secretary of Defense's Advisory Committee on Prisoners of War which discuss the Code of Conduct.

No. 1710.1C — Establishes basic policies and procedures governing the conduct of the All-Navy and Inter-Service Sports programs.

No. 1745.4A—Restates and amends existing directives relative to the financing of the Navy Special Services Programs.

No. 1750—Provides for indoctrinating members of the naval service and their dependents who are ordered to duty in a foreign country.

No. 1760.15—Informs commanding officers of Navy and Naval Reserve activities of the enactment of Public Law 147 (84th Congress), which is concerned with the settlement of accounts of deceased members of the uniformed services, and sets forth administrative regulations

Promotions Announced For Medical, Dental Corps Officers

The names of 1752 Regular Navy and Naval Reserve lieutenants junior grade of the Medical Corps and Dental Corps who have been recommended for temporary promotion to the grade of lieutenant have been announced. Of this group 1005 are officers of the Medical Corps and 747 are officers of the Dental Corps.

concerning the provisions of the Act.

No. 4642.2A – Promulgates general information concerning the availability of furlough fares for all active military personnel traveling within the continental limits of the United States while in a leave status.

No. 5802.1—Advised alien members of the naval service that all aliens who are in the United States on 1 January must report their address to the Immigration and Naturalization Service.

BuPers Notices

No. 1111 (17 Nov)—Announced the annual nationwide competitive examination for appointment to cadetship in the U. S. Coast Guard.

No. 1550 (22 Nov)—Advised all directors of Naval Reserve Officers' Schools, of two new courses to be included in the curriculum for 1955-56.

No. 1550 (23 Nov)—Announced the availability of an instructional analysis of *The United States and World Sea Power* (NavPers 92227).

No. 7220 (23 Nov)—Announced the extension of time for filing of claim for mustering out payment.

No. 1418 (25 Nov)—Announced the waiver of the stenographic performance test requirements required for personnel in the YN rating for the February 1956 examination.

No. 1085 (28 Nov)—Pertained to the administration of the Officer Service Record (Form NavPers 3021) and accountability for officers on the Temporary Disability Retired List.

No. 1426 (30 Nov)—Announced that officers eligible for permanent promotion to lieutenant (junior grade) USN, are required to report for physical examination six weeks before eligibility.

No. 1130 (1 Dec)—Announced Change No. 1 to BuPers Inst. 1130.-4C, which is concerned with the enlistment or reenlistment in the Regular Navy of Naval Reserve personnel serving on active duty.

No. 1550 (6 Dec)—Announced Change No. 1 to Instructor's Notes, Course 182, *Military Justice* (NavPers 92184).

No. 1085 (8 Dec)—Called attention to the continuing requirement for submission of Officer Biography Sheets (Form 979) and official photographs of certain officers.

No. 1416 (12 Dec)—Emphasized the responsibilities of supervisory examining boards in screening evidence of entitlement of officers to exemption from written examinations and clarified procedures to be followed, as set forth in BuPers Inst. 1416.2.

No. 1520 (13 Dec)—Announced Change No. 1 to BuPers Inst. 1520.-17B, concerned with Disaster Relief Course.

No. 1100 (16 Dec)—Described the purpose and use of the new pamphlet summary of the Master Recruiting Plan, fiscal year 1956.

No. 1412 (20 Dec)—Called attention of all officers to the January 1956 issue of the *Naval Training Bulletin*, which was devoted to the single subject of promotion of officers in the Navy.

No. 1710 (20 Dec) – Furnished supplementary information to BuPers Inst. 1710-1C concerning the 1956 All-Navy and Inter-Service Sports programs.

List of New Films Ready for Distribution to Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are designated by (C). Distribution began in December.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

Illegal (418): Drama; Edward G. Robinson, Nina Foch.

Running Wild (419): Drama; William Campbell, Kathleen Case.

Kiss of Fire (420) (C); Drama; Jack Palance, Barbara Rush.

Duel on the Mississippi (421): Drama; Lex Barker, Patricia Medina.

Count Three and Pray (442) (C); Drama; Van Heflin, Joan Woodward.

Pete Kelly's Blues (423) (C): Musical; Jack Webb, Janet Leigh.

Bengazi (424): Melodrama; Victor McLaglen, Richard Conte.

Three Stripes in the Sun (425): War Drama; Aldo Ray, Mitsuko Kimura.

Hit The Deck (426): Musical; Debbie Reynolds, Tony Martin.

Moonfleet (427): Adventure Drama; Stewart Granger, Viveca Lindfors.

Lady Godiva of Coventry (428) (C): Historical Drama; Maureen O'Hara, George Nader.

Many Rivers to Cross (429) (C): Romantic Comedy; Robert Taylor, Eleanor Parker.

Interrupted Melody (430): Musical Drama; Eleanor Parker, Glenn Ford.

The Fighting Chance (431): Drama; Rod Cameron, Julie London.

Ulysses (432) (C): Adventure Spectacle; Kirk Douglas, Silvana Mangano.

The McConnell Story (433): Drama; Alan Ladd, June Allyson.

State Fair (434) (Reissue): Romantic Comedy; Jeanne Crain.

"I'm sorry sir, I lost the ship in a local card game."

Roundup on State Income Tax Regulations for Naval Personnel

You are no doubt familiar with the pamphlet containing Federal income tax information published and distributed by the Bureau of Supplies and Accounts. This pamphlet is designed primarily for the use of Navymen on active duty and describes their rights and liabilities under Federal income tax laws.

However, certain states, territories and possessions of the United States also have their own income tax laws under which you may have liabilities, in addition to the Federal income tax. Below, you will find a summary of the requirements of the local income tax laws, as prepared by BuSandA.

You should note that, unless your State makes a special exception, members of the armed forces are not excused from state and local income taxes merely because they are on active duty.

Generally speaking, if you are a legal resident or live in a state on the last day of a taxable year, you are liable to the income tax laws of that state, even though you did not actually live there during the entire year. Furthermore, you are usually liable for income taxes to the state in which you live or earn your income, as well as the state in which you are a legal resident. However, Section 514 of the Soldiers' ad Sailors' Civil Relief Act of 1940, as amended, provides that a member of the armed forces who is a legal resident of one state but lives in another state *only* because of his military orders, is not liable to the state in which he is living for income taxes on his service pay. This does not apply to retired or retainer pay, or the separate income of any member of your family, or any of your income derived from other sources.

Let's say, for example, that your legal residence is Ohio, but you received orders to Washington, D. C. and have moved to Arlington, Virginia, with your family. You have no income other than your service pay. Since Ohio has no income tax laws, you are not required to file a return to the state of Ohio and, under the Soldiers' and Sailors' Civil Relief Act, you are not liable for filing a Virginia return. You have no problems—state income tax problems, that is.

Let's assume, however, that your pal came from Vermont and is on active duty in California. He pays income taxes in Vermont. He buys a house in California, not for the purpose of changing his legal residence, but only for a place to live while on duty in California. He intends to return to Vermont after his tour of active duty. He will be required to continue to file his state return to Vermont and under Section 514, California will not be able to impose an income tax on his service pay, even though he owns real estate in that state. However, if he is transferred from California and decides to rent his house as investment property, he would be liable to file a California return to report the rental income. If he decides to change his legal residence to California he will, then, of course, be subject to California state income tax laws.

Below, you will find a table which shows features of the income tax laws of the state, territorial and insular possessions of the United States. It primarily indicates the income requirements for filing of returns by residents of states having income tax laws, the personal exemptions allowed, due dates for filing returns and paying taxes, the state office from which further details may be obtained, and special provisions applicable to service personnel.

SUMMARY OF INCOME TAX LAWS OF STATES, TERRITORIES, AND POSSESSIONS

NOTE: 1. "Morried couple" or "married" as used in this summory meons husbond and wife living together.
2. A married service man or womon is considered to be living with his or her spause when seporoted only by reason af militory arders.

Amaunt of incame which requires residents to file returns	*Persanal exemptions*	*Due date for return ond payments*	*Title and oddress of toxing outhority*	*Special pravisions opplicable to armed services persannel*
ALABAMA:				
Net incame of: $1,500 ar more if single; $3,000 if married or head of family. Declaration of estimated tax required if net income other than wages exceeds $1,500 far on individual and $3,000 for married caupies.	$1,500 if single; $3,000 if morried or heod of fomily; $300 for eoch dependent.	Return due between 1 Jonuory ond 15 April. Payment with return or in installments. Declarotion due 15 April. Payment af estimated tax with declorotian or in instollments.	Stote Deportment of Revenue, Income Tox Division, Montgomery 2, Alabamo.	None. Members of Armed Farces outside continental United States moy defer filing until 30 days after return to United Stotes.
ALASKA:				
Over $600 income from saurces within the Territary.	$600 for taxpayer; $600 for spouse; $600 for each dependent. $600 additional exemptians for toxpayer and spause for blindness ond being 65 or over.	Return due 15 April. Poyment with return.	Department of Taxatian, Territary of Alaska, Aloska Office Buildings, Juneau, Alosko.	All active-service pay is exempt beginning 1 January 1951. Members of Armed Forces may defer paying until 6 manths after dischorge if obility to pay is impaired by reasan of military or naval service.

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
ARIZONA: Net income of: $1,000 or more if single; $2,000 or more if married; $5,000 or more gross income.	$1,000 if single; $2,000 if married or head of household; $600 for each dependent. $500 additional for taxpayer and spouse for blindness.	Return due 15 April. Payment with return or in installments.	Arizona State Tax Commission, Income Tax Division, Phoenix, Arizona.	$1,000 active-service pay is exempt. Members of Armed Forces outside continental United States may defer filing returns and payment of tax, without interest or penalty, until 180 days after release or termination of present emergency, whichever is earlier.
ARKANSAS: Gross income of $2,500 or more if single or separated from spouse; $3,500 or more if married.	$2,500 if single; $3,500 if married or head of family; $600 for each dependent.	Return due 15 May. Payment with return or in installments.	State of Arkansas, Department of Revenues, Little Rock, Arkansas.	All active-service pay is excluded from gross income.
CALIFORNIA: Net income of: $2,000 or more if single or head of household; $3,500 or more if married. Gross income of: $5,000 or more.	$2,000 if single; $3,500 if married or head of household; $400 for each dependent. $500 additional exemptions for taxpayer and spouse for blindness.	Return due 15 April. Payment with return or in installments.	State of California, Franchise Tax Board, Sacramento 14, California.	$1,000 active-service pay received after 30 Jun 1952, is exempt. Members of Armed Forces outside continental United States on or after 8 Apr 1953 granted automatic extension for filing returns and payment of tax, without penalty or interest, until 180 days after return to U. S. or 6 Jun 1955, whichever is later, if released after 8 Dec 1954. Those discharged before 9 Dec 1954 granted extension of 180 days after discharge.
COLORADO: Gross income of $600 or more.	$600 for taxpayer; $600 for spouse on joint return. $600 for each dependent. $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over.	Return due 15 April. Payment with return or in installments.	State of Colorado, Department of Revenue, State Capitol Annex, Denver 2, Colorado.	$2,000 of active or reserve service pay is excluded from gross income during a time of war or national emergency; $1,000 may be excluded during any year that the United States is not in a state of war or national emergency. (The $2,000 exclusion will apply to 1955.) Members of Armed Forces may defer filing returns and payment of tax without penalty or interest until one year after separation.
CONNECTICUT: None:				
DELAWARE: Gross income of: $600 or more if single or separated from spouse; $1,200 combined gross income of married couple.	$600 for taxpayer; $600 for spouse; $600 for each dependent; $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over.	Return due 30 April. Payment with return or in installments.	State of Delaware, State Tax Department, 843 King Street, Wilmington 99, Delaware.	None. Members of Armed Forces may, upon written application, be granted deferment for filing and paying until 6 months after discharge.

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
DISTRICT OF COLUMBIA: Over $4,000 gross income or receipts; Married couple whose combined gross income exceeds $4,000 and the income of each spouse exceeds $500. Married couple having combined gross receipts over $4,000. Joint returns not permitted.	$4,000 for taxpayer; $500 for each dependent, including spouse if such spouse not required to file return.	Return due 15 April. Payment with return or in installments.	District of Columbia, Income and Franchise Tax Division, Room 2033, Municipal Center, 300 Indiana Ave., N. W. Washington 1, D. C.	None. Deferment for filing returns or paying taxes granted members of Armed Forces outside the United States until 6 months after return.
FLORIDA: None.				
GEORGIA: Gross income of: $1,500 or more if single or separated from spouse; $3,000 or more if married.	$1,500 if single; $3,000 if married or head of family. $600 for each dependent. $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over.	Return due 15 April. Payment with return or in installments.	Department of Revenue, Income Tax Unit, 502 State Office Building, Atlanta 3, Ga.	$1,500 active-service pay is excluded from gross income from 1 January 1950 until terminotion of the Korean conflict. (This exclusion will apply for 1955.) Deferment for filing returns or paying taxes granted members of the Armed Forces outside continental U. S. until the 15th day of the fourth month after return to the U. S.
GUAM: Gross income of: $600 or more.	$600 for taxpayer; $600 for spouse; $600 for each dependent. $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over.	Return due 15 April. Payment due with return.	Division of Revenue and Taxation, Commissioner's Office, Department of Finance, Government of Guam, Agana, Guam.	Income of members of Armed Forces subject to same computations as for Federal returns.
HAWAII: Any amount from rents or a profession. Other income from within or without the Territory—$1,100 if single; $2,200 if married, or gross income from compensation and/or dividends taxable under the Compensation or Dividends Tax Law, with exception of $50 or less interest, etc. $2,850 if single, $5,900 if married.	$1,000 if single; $2,000 if married or head of family; $200 for each dependent. $5,000 exemption in lieu of normal exemption for taxpayer if blind.	*Net income tax return:* Return due 20 April. Payment with return or in installments. *Compensation and dividends tax return:* Return and payment due on or before 20th day of each month.	Bureau of Income and Miscellaneous Taxes, Territory of Hawaii, Department of the Tax Commissioner, P.O. Box 259, Honolulu 9, Hawaii.	Compensation received from the United States for service in the Armed Forces is excluded from gross income. Members of Armed Forces may defer paying not later than 6 months after discharge if ability to pay is impaired by reason of such service.
IDAHO: Net income in excess of personal exemptions.	$700 if single; $1,500 if married; $200 for each dependent. $5 credit from tax for each dependent in addition to exemption.	Return due 15 April. Payment with return or in installments.	State of Idaho, Office of Tax Collector, Income Tax Division, P. O. Box 1399, Boise, Idaho.	Idaho servicemen exempt if serving outside the State. Members of Armed Forces outside continental limits of United States may defer filing returns and paying taxes until 6 months after discharge.
ILLINOIS: None.				

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
INDIANA: Gross income over $1,000. Joint returns not permitted.	$1,000 for each taxpayer.	Quarterly returns (required when tax for any quarter is $10 or more) due by 30 April, 31 July, and 31 October. Annual return due 31 January. Payment with return.	Indiana Department of State Revenue, Gross Income Tax Division, 141 South Meridian Street, Indianapolis 9, Indiana.	All active-service pay is exempt. Members of Armed Services may defer filing returns and paying tax until 6 months after discharge.
IOWA: Net income of: $1,500 or over if single or separated from spouse; $2,350 or more if married. Gross income of: $3,000 or more.	Credit from tax: $12 if single; $24 if married or head of family; $12 for each dependent child.	Return due 30 April. Payment due with return or in installments.	State Tax Commission, Income Tax Division, State Office Building, Des Moines 19, Iowa.	Exclusion same as for Federal returns.
KANSAS: Net income of: $600 or more if single or separated from spouse; $1,200 or more if married. Gross income of: $4,000 or more.	$600 for taxpayer; $600 for spouse; $600 for each dependent. $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over.	Return due 15 April. Payment with return or in installments.	State Commission of Revenue and Taxation, Income Tax Division, Statehouse, Topeka, Kansas.	$1,500 active-service pay excluded from gross income until the termination of the present world crisis, as determined by the executive council of the State. Deferment granted members of Armed Forces for filing returns and paying taxes until one year after discharge or one year after termination of present world crisis, whichever is earlier.
KENTUCKY: Net income of: $1,000 or more if single or separated from spouse; $2,000 or more if married. Gross income of: $1,500 or more if single or separated from spouse; $2,500 or more if married. Declaration of estimated tax for 1955 required if gross income will be $1,500 or more, and if gross income from sources other than wages will be $1,000 or more.	Credit from tax: $20 if single; $40 if married or head of family; $10 for each dependent. $10 additional credits for taxpayer and spouse 65 or over, or blind.	Return due 15 April. Payment with return. Declarations due 15 April. Payment of estimated tax with declaration or in installments.	Commonwealth of Kentucky, Department of Revenue, Frankfort, Kentucky.	Income of members of Armed Forces subject to same computations as for Federal returns. Members of the Armed Forces may defer filing returns and paying taxes until 12 months after termination of the national emergency, or termination of military service, whichever is earlier.
LOUISIANA: Net income of: $2,500 or more if single or separated from spouse; $5,000 or more if married. Gross income of: $6,000 or more.	$2,500 if single; $5,000 if married or head of family; $400 for each dependent.	Return due 15 May. Payment with return or in installments.	State of Louisiana, Department of Revenue, Baton Rouge 1, Louisiana.	None. Members of Armed Forces on sea or foreign service duty, and prisoners of war, on due date of return have deferment until 15th day of 5th month following return to continental United States.
MAINE: None.				

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
MARYLAND: Gross income in excess of: $800 if single; $1,600 if married or head of family. Declarations of estimated tax required if income will be $500 or more not subject to withholding, and total gross income will be $1,500 or more if single and $2,500 or more if married.	$800 if single; $1,600 if married; $800 for each dependent. Additional exemptions for taxpayer and spouse if over 65 or blind, and for dependents over 65.	Return due 15 April. Payment with return. Declarations due 15 April. Payments of estimated tax with declaration or in installments.	State of Maryland, Comptroller of the Treasury, Income Tax Division, Annapolis, Maryland.	$1,500 of active-service pay excluded from gross income beginning calendar year 1951. Substantially follows Federal law with respect to deferments by members of Armed Forces.
MASSACHUSETTS: Earned income of $2,000 or more; Other taxable income in any amount.	$2,000 for taxpayer against earned income; $500 for spouse; $400 for each dependent.	Return due 15 April. Payment with return.	The Commonwealth of Massachusetts, Department of Corporations and Taxation, Income Tax Division, 40 Court Street, Boston, Massachusetts.	None.
MICHIGAN: None.				
MINNESOTA: Gross income in excess of: $1,000 if single; $2,000 if married or head of household, or if combined income of married couple exceeds $2,000.	Credit from tax: $10 if single; $30 if married or head of household; $10 for each dependent. Additional credits for taxpayers for blindness and being 65 or over.	Return due 15 April. Payment with return or in installments.	State of Minnesota, Department of Taxation, Income Tax Division, 213 State Office Building, St. Paul 1, Minnesota.	$3,000 active-service pay excluded from gross income. Members of Armed Forces outside continental United States continuously for more than 90 days granted extension of time until 6 months after return.
MISSISSIPPI: Net income in excess of personal exemptions. Gross income over $6,000.	$4,000 if single; $6,000 if married. No personal exemption for dependents.	Return due 15 April. Payment with return or in installments.	State Tax Commission, Income Tax Division, Jackson, Mississippi.	None.
MISSOURI: Gross income of $1,200 if single; $2,400 or more if married or head of family.	$1,200 if single; $2,400 if married or head of family; $400 for each dependent.	Return due 15 April. Payment with return.	State of Missouri, Department of Revenue, Division of Tax Collection, Jefferson City, Missouri.	$3,000 active-service pay exempt beginning with calendar year 1951.
MONTANA: Net income of: $1,000 or over if single; $2,000 or more if married or head of family. Declarations of estimated tax required where income tax not subject to withholding can be expected to equal or exceed income subject to withholding.	$1,000 if single; $2,000 if married or head of family; $300 for each dependent.	Return due 15 April. Payment with return or in installments. Declaration due 15 April. Payment of estimated tax with declaration or in installments.	State of Montana Board of Equalization, State Capitol Bldg., Helena, Montana.	None. Members of Armed Forces may defer filing returns and paying taxes until six months after discharge in cases of undue hardship caused by military service.
NEBRASKA: None.				
NEVADA: None.				
NEW HAMPSHIRE: Any amount of taxable income from interest or dividends. Joint returns not permitted.	$600 for each taxpayer.	Return due 1 May. Payment with return.	State Tax Commission, Division of Interest and Dividends, Concord, New Hampshire.	None.

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
NEW JERSEY: None.				
NEW MEXICO: Gross income of: $1,500 or more if single; $2,500 or more if married.	$1,500 if single; $2,500 if married; $200 for each dependent.	Return due 15 April. Payment with return or in installments.	State of New Mexico, Income Tax Division, Bureau of Revenue, P. O. Box 451, Sante Fe, N.M.	None.
NEW YORK: Combined net income and net capital gain of: $1,000 or more if single or separated from spouse; $2,500 or more if married or head of family. (Note: Net income is computed without deduction of capital losses.) Combined gross income and capital gain of $5,000 or more.	$1,000 if single; $2,500 if married or head of family; $400 for each dependent.	Return due 15 April. Payment with return or in installments.	State of New York, Department of Taxation and Finance, Income Tax Bureau, Albany 1, New York.	All compensation for active service as a member of the Armed Forces is excluded from gross income from 1 January 1942 until 31 December 1955, or termination of present emergency as proclaimed by the President, whichever is earlier.
NORTH CAROLINA: Net income of: More than $1,000 if single or if a married woman with separate income; $2,000 if a married man living with his wife on 31 December. Gross income of more than $5,000 from a business or profession. Joint return not permitted unless the income is from jointly owned property.	$1,000 if single; or a married woman having separate income; $2,000 if married man or head of a household; $2,000 if widow or widower with minor child; $1,000 additional if blind; $300 for each dependent of a taxpayer entitled to the $2,000 exemption.	Return due on or before 15 April. Payment due with return or in installments.	State of North Carolina, Department of Revenue, Income Tax Division, Raleigh, North Carolina.	All active service pay excluded until 31 Jan 1955; none thereafter.
NORTH DAKOTA: Net income of: $600 or more if single or separated from spouse; $1,500 or more if married or head of household. Gross income of: $5,000 or more.	$600 if single; $1,500 if married or head of household; $600 for each dependent. $600 additional exemptions for taxpayer and spouse 65 or over.	Return due 15 April. Payment with return or in installments.	State of North Dakota, Office of Tax Commissioner, State Capitol Building, Bismarck, North Dakota.	All active-service pay is exempt. Deferment granted to members of armed forces until the 15th day of 6th month following discharge.
OHIO: No personal income tax, but residents of some Ohio cities and municipalities may be liable for income taxes.				
OKLAHOMA: Gross income of: $1,000 or more if single; $2,000 or more if married.	$1,000 if single; $2,000 if married or head of family; $500 for each dependent.	Return due 15 April. Payment with return or in installments.	Oklahoma Tax Commission, Income Tax Division, State of Oklahoma, Oklahoma City 5, Oklahoma.	$1,500 of active service pay excluded until 1 Jan 1955; none thereafter.
OREGON: Net income in excess of personal exemptions. Gross income of $4,000 or more.	$500 if single, or separated from spouse; $1,000 if married or head of family; $500 for each dependent. $500 additional for each taxpayer who is blind; $6 credit from tax for each taxpayer 65 or over. Additional "Hardship" exemption on incomes under $1,000 if single, and $1,500 if married.	Return due prior to 15 April. Payment with return or in installments.	State Tax Commission, Income Tax Division, 100 State Office Building, Salem, Oregon; or State Tax Commission, 1400 S.W. 5th Avenue, Portland, Oregon.	$3,000 active-service pay is excluded for tax years beginning after 31 December 1941. Members of Armed Forces have extension of time for filing returns and paying taxes by disregarding period of active duty outside the United States, subject to minimum of 90 days.

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
PENNSYLVANIA: No personal income tax, but residents of some Pennsylvania cities and municipalities may be liable for local income taxes.				
PUERTO RICO: Net income of: $800 or over if single or separated from spouse or if head of family; $2,000 or over if married. Gross income of $5,000 or more.	$800 if single or separated from spouse; $2,000 if married or head of family; $400 for each dependent.	Return due 15 April. Payment with return or in installments.	Commonwealth of Puerto Rico, Department of the Treasury, Bureau of Income Tax, San Juan (Santurce), P.O. Box 9717, Santurce, Puerto Rico.	None. Members of Armed Forces outside Puerto Rico may defer filing and paying.
RHODE ISLAND: None.				
SOUTH CAROLINA: Net income of: $1,000 or more if single or separated from spouse; $1,800 or more net aggregate income of married couple.	$1,000 if single; $2,000 if married or head of a household; $400 for each dependent.	Return due 15 April. Payment with return or in installments.	South Carolina Tax Commission, Income Tax Division, Drawer 420, Columbia, South Carolina.	Income of members of Armed Forces subject to same computations as for Federal returns.
SOUTH DAKOTA: None.				
TENNESSEE: Income of $25 or more from dividends and interest.	None.	Return due 15 April. Payment with return.	State of Tennessee, Department of Finance and Taxation, Income Tax Division, Nashville, Tennessee.	None.
TEXAS: None.				
UTAH: Gross income of: $600 or more if single or separated from spouse; $1,200 or more if married.	$600 if single; $1,200 if married; $600 additional exemption for taxpayer and spouse for blindness. $600 for each dependent.	Return due 15 April. Payment with return.	State Tax Commission, 118 State Capitol, Salt Lake City, Utah.	None.
VERMONT: Gross income of: $500 or more. Declaration of estimated tax required on income not subject to withholding.	$500 for taxpayer; $500 for spouse; $500 for each dependent. Additional exemptions are allowed taxpayer and spouse for blindness and being 65 or over.	Return due 15 April. Payment with return. Declaration due 15 April. Payment of estimated tax with declaration or in installments.	Commissioner of Taxes, Montpelier, Vermont.	Income of members of Armed Forces subject to same computations as for Federal returns. Members of the Armed Forces may defer filing returns and paying taxes no later than six months from date of discharge.
VIRGINIA: Gross income of $1,000 or more.	$1,000 for taxpayer; $1,000 for spouse; $200 for each dependent. $600 additional exemptions for taxpayer and spouse for blindness and being 65 or over. $800 additional for dependent mother, father, son, daughter, brother, or sister of unmarried taxpayer.	Return due 1 May. Payment due 5 December.	Commissioner of Revenue, of the county of which taxpayer is a resident; or Commonwealth of Virginia, Department of Taxation, Richmond 15, Virginia.	Income of members of Armed Forces subject to same computations as for Federal returns for 1951 through 1955.

Amount of income which requires residents to file returns	Personal exemptions	Due date for return and payments	Title and address of taxing authority	Special provisions applicable to armed services personnel
WASHINGTON: None.				
WEST VIRGINIA: None.				
WISCONSIN: Net income of: $1,400 combined net income of married couple. Gross income of: $600 or more.	Credit from tax: $7 if single; $14 if married or head of family; $7 for each dependent.	Return due 15 April. Payment with return or in installments.	State of Wisconsin, Department of Taxation, 121 South Pinckney St., Madison 3, Wis; or Assessor of Income for county in which taxpayer resides.	$1,500 active-service pay is excluded through 1956. Extension of time for filing returns and paying taxes is granted to members of Armed Forces outside the U. S. on the date their taxable year ends or the date returns are due, until six months after discharge, but in no case after 15 Jun 1957.
WYOMING: None.				

Applications Open to USN and USNR Officers on Active Duty for Submarine Training

Applications from Regular Navy and Naval Reserve line officers on active duty are being accepted for the Submarine School, New London, Conn., which convenes the first week in July 1956.

The length of the course is six months. Applications, which should reach the Bureau of Naval Personnel not later than 1 Mar 1956, are desired from officers in the grade of lieutenant (junior grade) whose date of rank is on or after 1 Jan 1954 and of ensigns whose date of rank is before 1 Jul 1955.

Here are further details:

You are selected upon the quality of your fitness report records and your educational background.

You should be qualified to stand OOD watches under way prior to reporting to Submarine School.

Forward your physical examination report with your letter of application to the Chief of Naval Personnel.

The obligation to serve at least one year after reporting to a submarine is in addition to your present obligation and any other active duty requirements.

If you apply and fail of selection, you will not be considered automatically for the next class. A separate application is required.

You will not be ordered to Submarine School unless you: have completed at least one year of active commissioned service as of 1 Jul 1956; are physically qualified for submarine duty; and execute a signed agreement not to resign nor request to be released from active duty during the course at the Submarine School and for a period of at least one year after reporting to your first submarine duty.

There are a limited number of quarters available for married students. It is suggested that you submit a request for quarters as soon as you receive your orders.

All-Navy Comic Cartoon Contest—
E. F. Hudson, LTJG, USNR

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH IS ON PAGE 9.

1. (b) Commandant, U.S. Marine Corps.
2. (c) General Randalph McPate.
3. (c) Royal Hellenic Navy.
4. (c) Cammander
5. (c) Charles S. Thomas
6. (b) 1798

Course in Petroleum Ready for Civil Engineer Corps Officers

A new CEC officer correspondence course, *Petroleum Fuels and Lubricant Systems* (NavPers 10752), is now available at the Naval Correspondence Course Center. This course is restricted to officers of the Civil Engineer Corps, Regular or Reserve. It consists of four assignments, and is evaluated at eight Naval Reserve points credit.

All-Navy Cartoon Contest
P. B. Kincade, PNC, USN.

"I can't teach Seaman Dilbagg to march, Sir. He's gat two left feet!!"

DECORATIONS & CITATIONS

"For extraordinary heraism in actian against the enemy . . ."

★ NEAL, George M., AD3, USN, serving with a Navy Helicopter Rescue Unit in North Korea on 3 Jul 1951. Neal voluntarily flew as crewman of a helicopter to the reported position of a downed aviator in an attempt to effect a rescue. Despite the overcast, approaching darkness and increasing enemy fire the crew persisted in the search until the downed aviator, who was suffering from an injured leg, was found. While effecting the rescue the helicopter was hit and crashed in enemy territory. The small party avoided capture for nine days. After capture they steadfastly refused to aid the enemy.

"For exceptionally meritarias service to the Government of the United States in a duty of great respansibility . . ."

★ SABIN, Lorenzo S., RADM, USN, for performance of exceptional service to the government of the United States as Commander Task Force 90 during the operation 'Passage to Freedom' from 8 Aug 1954 to 11 Apr 1955. During this period, Rear Admiral Sabin successfully brought about the evacuation of more than 260,000 Vietnamese refugees. In addition to the large number of refugees evacuated, Rear Admiral Sabin directed the amphibious forces under his command in lifting more than 7600 vehicles and 66,000 tons of cargo with a minimum loss of time to the ships involved.

"Far exceptianally meritarias conduct in the performance of outstanding service to the Government of the United States . . ."

★ DOOLEY, Thomas A., LTJG, USNR, for exceptionally meritorious conduct in connection with the mass evacuation of Vietnamese refugees in Task Force 90 ships from 10 Aug 1954 to 30 Jan 1955.

★ FRASER, George K., CAPT, USN, Chief of Staff and Aide to Commander Carrier Division 3 during operations against enemy aggressor forces in Korea from 19 Mar to 4 Sep 1952. Combat "V" authorized.

★ PLANK, DICK A., CDR, USNR, Officer-in-Charge of a Special Bureau of Ordnance Technical Task Team and as Special Mining Assistant of the Chief of Naval Operations and to a Fleet Commander from June 1954 to April 1955.

★ THEW, Joseph P., CAPT, USN, as Commander Fleet Activities in Yokosuka, Japan from 12 Aug 1952 through 4 Jun 1955. He contributed immeasurably to the effectiveness of friendly fleets during the Korean conflict and to the high state of readiness since the signing of the armistice.

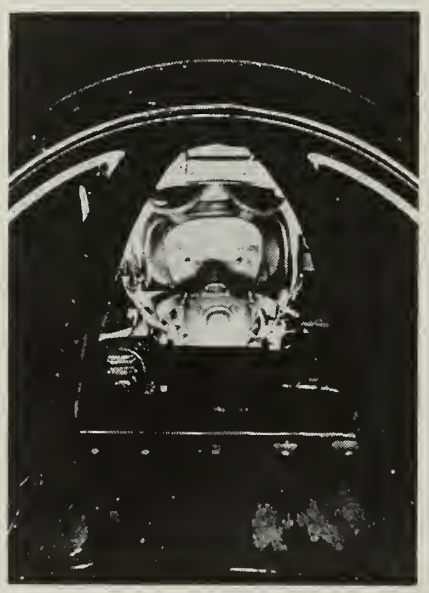
Gold star in lieu of second award:

★ CARSON, Joseph M., RADM, USN, Commander Fleet Air, Japan, and as Commander Naval Air Bases, Japan, from February 1953 to March 1955.

★ GANO, Roy A., RADM, USN, Commander Logistic Group during the planning of Operation 'Passage to Freedom' from 9 August to 19 Sep 1954.

Gold star in lieu of third award:

★ SYLVESTER, John, RADM, USN, as Commander Task Group 7.3, Joint Task Force 7 at Washington, D.C.; San Diego, California; and in an Eastern Pacific Ocean Area from 9 Jan 1953 to 31 Jul 1955. He was responsible for the over-all planning, development and successful completion of operation WIGWAM, an underwater detonation of an atomic device.



"For heraism ar extraordinary achievement in aerial flight . . ."

★ BRAND, Richard G., LT, USN, as a pilot in Helicopter Squadron 1, Unit Nineteen, during a rescue mission off Wonsan, North Korea, on 24 Feb 1953.

★ DUNLEVY, Francis J., ARM3, USNR, as second radioman of a patrol bomber plane in Patrol Bomber Squadron 216 during operations against enemy Japanese forces in the Pacific War Area from 31 Aug to 8 Oct 1944.

★ GILKEY, Arthur W., LTJG, USNR, as a pilot of a plane engaged in an observation reconnaissance flight in the Southwestern Pacific Area.

★ HARMAN, Walter R., LCDR, USNR, as a pilot and division leader in Fighter Squadron 783 attached to USS *Bon Homme Richard* during a rescue mission in Korea on 3 Oct 1951.

Gold star in lieu of second award:

★ SANDERS, Charles C., LCDR, USN, as a pilot and flight leader in Fighter Squadron 871 attached to USS *Essex* during a rescue mission in Korea on 20 Oct 1952.

Gold star in lieu of fourth award:

★ BLAKE, Gilbert S., LTJG, USNR, as a pilot in Torpedo Squadron 10 during operations in the Pacific War Area from 21 to 29 Apr 1944.

"Far heraic canduct nat involving actual conflict with an enemy . . ."

★ HOFFMAN, Arthur A., ACC, USN, for heroic conduct in the South China Sea on 17 Sep 1954.

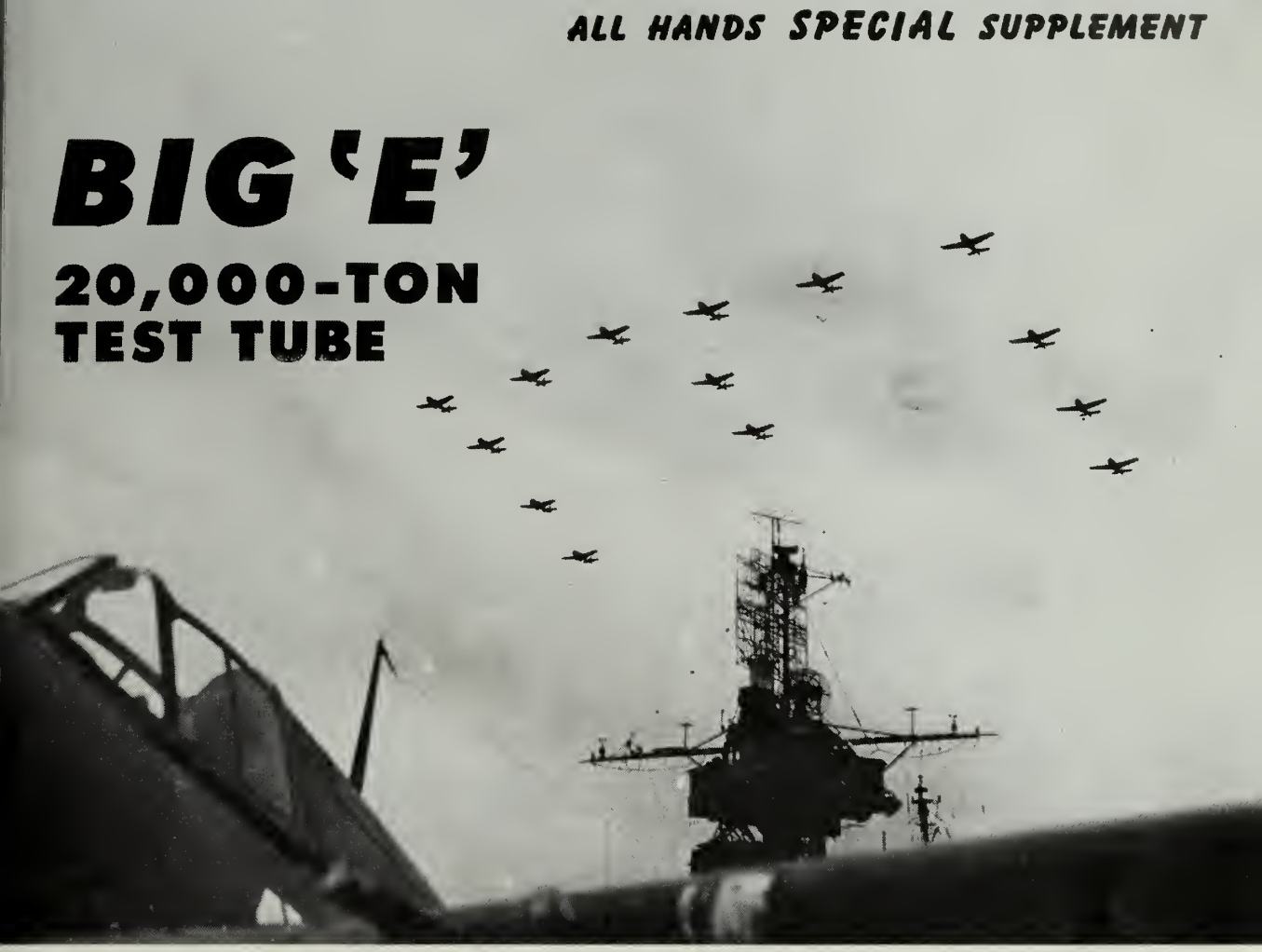
★ KUSCIENKO, Raymond, HM3, USN, for heroic conduct in saving a British soldier from probable death in Korea on 29 Nov 1954.

★ REID, Roger H., USNR, for heroic conduct in connection with a mission over the Sea of Japan on 4 Sep 1954.

★ THOMPSON, John L., ENS, USNR, serving in USS *Henley* (DD 762) on 13 Nov 1953.

BIG 'E'

20,000-TON TEST TUBE



Because of the vast potentialities suggested by super carriers such as USS *Forrestal* (CVA 59) and the conversion program of the more conventional carriers, it might be useful to recall that, at the beginning of World War II, the aircraft carrier had yet to prove itself. As based upon official records, here's the life story of USS *Enterprise* (CVS 6), one of those which helped to establish firmly the doctrine of carrier warfare.

A STORM AT SEA delayed *Enterprise* just long enough for her to miss the attack on Pearl Harbor.

The "Big E" was steaming through the Central Pacific early in December 1941 when she ran into very heavy weather. She had been busy the previous months shuttling planes from the States to various island bases. To save her escorting destroyers from a terrific buffeting under the crashing waves, the flag, Fleet Admiral (then Vice Admiral) William F. Halsey, Jr., USN, ordered reduced speed.

As a result, *Enterprise's* ETA at Pearl Harbor was delayed—from 6 December to 7 December—and *Enterprise* was thus saved.

As she neared Pearl Harbor on that fateful 7 December morning, her planes prepared to take off for the airfields around Pearl, according to plan. One flight left on what seemed a peaceful Sunday morning in the tropics, but when they reached Pearl they ran right into the middle of the Japanese attack. Their radio report was the first the carrier had that the nation was at war. Although it does not appear in official records, *Enterprise* men insist one of their scouts shot down the first enemy plane of the war that morning.

The Enterprise *of which we speak was named after six other United States ships that had earlier attained considerable recognition. The first was a sloop* (1775-77) *which had been captured from the British and which had fought gallantly at Lake Champlain in* 1776 *under General Benedict Arnold. The second* (1777) *was an armed schooner which had convoyed transports in Chesapeake Bay in the same war. The third* (1779-1823) *was the most famous of the group, and was commanded by such illustrious naval figures as Stephen Decatur, David Porter, and Isaac Hull. She was a* 12-*gun schooner that had a brilliant career in the quasi war with France, against the Barbary pirates, and in the War of* 1812.

The fourth Enterprise (1831-1845) *was a* 10-*gun schooner which engaged in suppressing the West African slave trade. The fifth of the name* (1877-1909) *was a steam corvette with auxiliary sailpower which served intermittent tours of duty with the European squadron until* 1890 *and was then converted into a training ship. The sixth ship* (1917-1919) *was originally a private yacht and saw service as a patrol ship during WW I.*

Under the Act approved by Congress in 1933, *President Franklin D. Roosevelt authorized the sum of* $238,000,000 *for the construction of naval ships. On* 3 *August of that year, the Navy Department awarded a contract for the construction of two aircraft carriers. The keel for the first,* USS Yorktown (*CV* 5) *was laid in May* 1934 *and the ship was launched in September* 1937. *The keel of the second,* Enterprise, *sister ship of* Yorktown, *was laid in July* 1934 *and the ship was launched in October* 1936.

Commissioned in 1938, *the* 19,500-*ton carrier spent her entire career after* 1939 *in the Pacific. She had a length of* 827 *feet, and a maximum breadth of* 114 *feet; her hull and machinery cost approximately* $19,000,000. *She carried a peacetime complement of* 82 *officers and* 1447 *sailors, plus an Air Group of four squadrons.*

(*By way of comparison,* Forrestal, *first of its class, constructed at a cost of approximately* $218,000,000, *has a standard displacement of* 59,650 *tons, an over-all length of* 1036 *feet, and a flight deck* 252 *feet wide. The vessel carries a complement of* 466 *officers,* 3360 *enlisted personnel.* Ranger *and* Saratoga *have nearly similar statistics.*)

The "Big E" crowded a lifetime into her nearly four years of warfare. The enemy damaged her 15 *times with hits and near misses. Tokyo claimed her "sunk" on six different occasions, but after each "sinking," she returned to battle.*

Her final record was 911 *Japanese planes shot down by the ship's guns and planes,* 71 *enemy ships sunk by her pilots, another* 192 *ships damaged or probably sunk, and vast damage to enemy shore installations. While accumulating* 20 *battle stars,* Enterprise *recorded some* 54,000 *plane landings and had travelled more than* 275,000 *miles—the equivalent of* 12 *times around the world at the equator.*

IT REMAINED FOR the raids on the Marshall and Gilbert Islands to account for the first official entry of enemy air loss on the *Enterprise* bulkhead. Only a little more than a month had passed since Pearl Harbor before a task force, with *Enterprise* as its central weapon, illustrated again the effectiveness of the theory (already proved by the Japanese at Pearl Harbor) that an air attack could be effectively launched from a mobile, floating base.

'LUCKY LITTLE *ENTERPRISE*'—most famous of old ships with the name fought Barbary Pirates and War of 1812.

FIFTH WITH SAME NAME (1879-1909), a steam corvette with auxiliary sails, served with European Squadron.

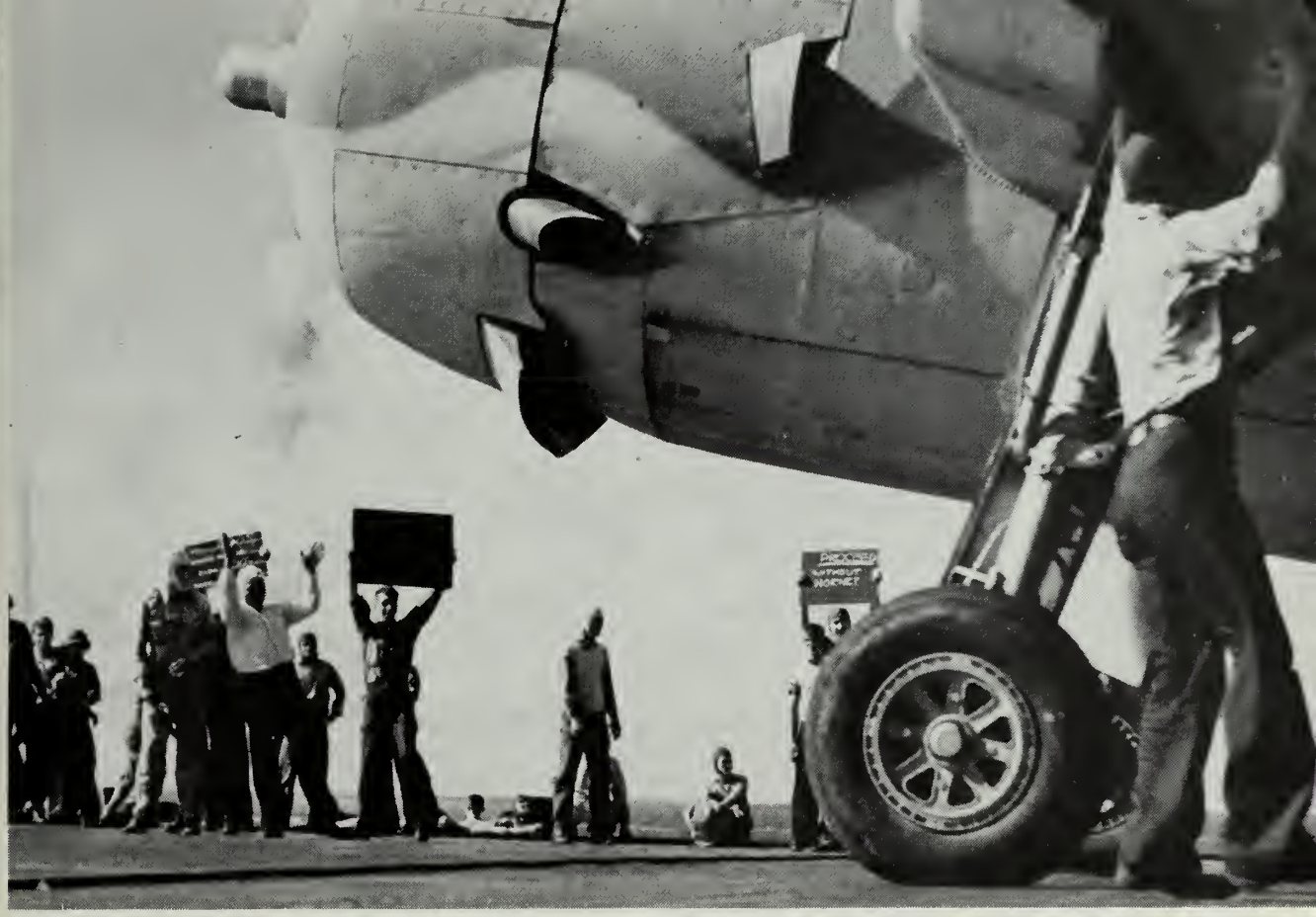
Supported by a group of surface vessels, including three heavy cruisers, in February 1942 the "Big E" drove deep into Japanese-held territory and, in the attack on the Marshall-Gilbert Islands, wrote the first page in a brilliant record that within 10 months was to earn her the Presidential Unit Citation.

With relatively small losses in material and casualties, *Enterprise,* in company with *Yorktown* and supporting vessels, hit hard at an enemy naval base and naval air base; sank some 73,000 tons of enemy ships, including two submarines, and not counting a light cruiser which was certainly out of the war for many months; blasted two airfields, destroyed 36 Japanese aircraft and in so doing successfully completed a laboratory experiment that was to develop into a new kind of war at sea—the task force erected on the airplane carrier. Her planes also sank the Japanese submarine I-170 (the first Japanese submarine — except midgets — to be sunk) three days after Pearl Harbor. She was operating in the "Shangri-La" carrier task force in April 1942, and within a few months had fought in the Battle of Midway and the Battle of Stewart Island.

Enterprise demonstrated that an aircraft carrier need not necessarily be a sitting duck for enemy aircraft. During the Marshall-Gilbert attack, five enemy dive bombers made passes at the flattop, one attempting to make a deliberate crash landing on the flight deck which was crammed with planes. But the ship's antiaircraft batteries brought it down before any damage was done. Total cost to *Enterprise*: six planes.

ADM William F. Halsey, commanding the task force, had this to say about the Marshall-Gilbert attack: "The action embraced to the best of my knowledge the first instance in history of offensive combat by United States carriers. The performance of *Enterprise* justifies the highest hopes heretofore held regarding the effectiveness of these vessels when properly employed. This action likewise, was the first offensive operation by task forces in the Pacific Fleet in the current war."

SIX MONTHS LATER, when, in America's first important offensive action of the war, Marines landed at Guadalcanal and Tulagi, air cover was provided by the planes of *Enterprise.* Enemy positions were wiped out as her squadrons covered Marine landings, during which time 56,000 pounds of bombs were dropped and 13 enemy planes were shot down in one day. Advocates of



PLANES FROM DECK of 'Big E' proved the worth of carriers during WW 11 and led the way for future flattops.

amphibious landings noted with relief and satisfaction that aircraft carriers provided air cover for the landing forces.

During October-November of 1942, *Enterprise* left no doubt as to the effectiveness of the carrier as an offensive and defensive weapon. As part of the task force bent on blocking the Japanese Fleet still intent on rooting the Marines out of Guadalcanal, search planes of *Enterprise* made contact with the enemy north of Santa Cruz Islands where there were two enemy forces: one composed of two battleships, a heavy cruiser and seven destroyers; the other, two carriers. Her planes scored hits on a carrier and a battleship, shot down 33 enemy planes while her antiaircraft batteries were accounting for another 30. Violent maneuvering spared her several torpedo hits from attacking planes, but she sustained two damaging bomb hits. It was in this battle that USS *Hornet* (CV 8) suffered such severe damage that it was necessary to abandon and sink her.

In port for a hasty patch job, *Enterprise* was on her way again in two weeks, in time to repel another major Japanese attempt to re-take Guadalcanal. Seabees were still aboard her, repairing the damage she suffered at Santa Cruz. On 13 November, one of her flights sighted a Japanese battleship and destroyer escorts steaming into position to bombard Henderson Field, verifying an earlier report brought in by a PBY. After her torpedo bombers deposited their torpedoes into the battleship, leaving it listing badly, the "Big E" concentrated for the next two days on the enemy's invasion transports.

Shuttling back and forth between the ship and Henderson Field, the carrier's planes sank one heavy cruiser, and scored "probables" on one battleship, one heavy cruiser, one light cruiser, two transports. In addition they damaged two light cruisers, a destroyer and numerous transports and shot down 17 planes. The "Big E" lost five planes in this Battle of Guadalcanal where surface ships, along with the Navy, Marine and Army planes, combined to stop the largest enemy effort to drive the U. S. forces from the island.

IT WAS DIFFERENT in 1943. By early summer, the first of the new *Essex*-class carriers were arriving in Pearl Harbor to mount the coming offensive through the Central Pacific. After having stood a long vigil as the only U. S. carrier in the South Pacific, *Enterprise* was joined by USS *Saratoga* (CV 3) and later the British carrier HMS *Victorious*. So it was decided that the "Big E" could be spared from the front line long enough to return to the States for a much-needed overhaul. She still had her scars—such as the "tent city" in officers' country where canvas bulkheads had been hung to replace the steel knocked out by bombs.

Upon her return to action, *Enterprise* men had discovered that their place was being taken by dozens of new first-line carriers, battleships, cruisers and destroyers. The "Big E" no longer looked so big when she joined the new task force.

Nevertheless, it was again *Enterprise* who inaugurated a new type of carrier warfare—night fighting. During the invasion of the Gilbert Islands in November 1943—the first step in the advance across the Pacific

SUICIDE DIVE of Japanese plane blew elevator into the air and buckled deck. Needed repairs sent her home.

—the Japanese found that their bombers were unable to penetrate the screen of new *Hellcat* fighters which the large carrier fleet could keep in the air during daylight hours.

So the Japanese took to night tactics, sending in medium bombers carrying torpedoes. This was a serious threat to the Fleet, as there was no effective countermeasure immediately available.

Under the direction of ADM Arthur W. Radford, USN, (then RADM), a three-plane element for searching out and knocking down enemy planes at night was evolved. These units were called "Bat Teams" and were composed of one radar-equipped *Avenger* torpedo plane leading two *Hellcat* fighters. The *Avenger* was to be directed to within a few miles of the enemy target by the ship's fighter director by means of the ship's radar. Then it was to use its own radar to lead the fighters to within visible range where they could shoot him down.

On the night of 26 Nov 1943, when *Enterprise* was operating off Tarawa, enemy torpedo bombers were detected approaching the carriers. The trial Bat Team destroyed two and possibly three Japanese planes and the rest were driven off without inflicting any damage to the force.

FROM THAT TIME on *Enterprise* was the pioneer in the development of the art of night combat—an art that was to reach the point where, at one stage in the war, *Enterprise* had planes in the air day and night for 175 consecutive hours, or more than one full week.

It was her night fighting torpedo planes that sparked the success of the first carrier strike on Truk in February 1944; and during the battle of the Philippine Sea, it was *Enterprise* planes that finally located the enemy fleet when it appeared to have gotten away free; and with Air Group 20 on board, she attacked all three of the widely scattered enemy forces used in the Battle of Leyte Gulf.

SIX TIMES 'SUNK' is number of times enemy reported her sent below. Here Kamikaze scores hit near Okinawa.

The "Big E's" career after she joined Admiral Halsey's Third Fleet in the fall of 1944 was highlighted by her work in the Leyte Gulf battle. She damaged two battleships and a heavy cruiser, and attacked a new Japanese battleship which later sank, becoming the first modern battleship with advanced AA defense to go down under plane attack alone.

Enterprise climaxed her night combat flying during the first five months of 1945 when her planes flew more than 1000 target sorties from her deck. In these operations she covered the invasion of Luzon, struck against the enemy force and instalations in French-Indo-China, Hong Kong, the China Coast, Canton, Taiwan [Formosa] and Okinawa, made two carrier strikes against Tokyo and the Inland Sea, supplied air support for the Iwo Jima landings in February and March, and initiated the softening up bombardment and air support for the Okinawa landings in April and May.

In the last months of the war, Night Air Group 90 proved how much damage night-flying carrier planes can inflict by using the pin-point bombing technique of carrier pilots. Five *Avengers* from the ship conducted search and attack missions into the Inland Sea at ranges up to 350 miles, and there they damaged a carrier and a battleship with bombs and rockets; damaged a destroyer with rockets; struck three merchant vessels with 500-pound bombs; shot down a four-engined Japanese flying boat; and scored 500-pound bomb hits on an airplane plant at Honshu.

ALTHOUGH THE OKINAWA campaign marked the height of the Kamikaze attacks, these tactics were not new to *Enterprise*. As far back as February 1942, off the Marshalls, a Japanese pilot bent on crashing her flight deck came close enough to knock a parked plane overboard.

Again, almost six months before the Okinawa attack, a suicide pilot was determined to make a death dive on the carrier.

"The pilot must have been killed while making the dive," LT Gerald J. Flynn, USNR, then gunnery officer, said at the time, "because the plane began circling the carrier. It came down, then levelled off and made a complete circle of the ship before it crashed aft—and fairly close. I'll never forget that plane as it winged around the ship. Every moment you expected it to turn on you, and it was so close you could almost hit it with a baseball. The gunners pumped shells into it continuously, but it kept on circling until it literally disintegrated."

Later, operating as flag ship of task force 58, with Vice Admiral Marc A. Mitscher, USN, on board, she was standing by, some distance off Okinawa, waiting for her planes to return from forays over the island where they were giving air cover to landing operations. A *Hellcat* pilot brought his plane in, climbed wearily out and reported that he had knocked down an enemy plane nearby. *Enterprise* gunners splashed three attackers coming in on the carrier soon afterwards.

A sharp-eyed lookout spotted another enemy plane maneuvering in the cloud cover over the flattop. It cleverly evaded the task force fighters and, ducking through the heavy curtain of flak, came screaming down on the "Big E." When it looked as though the pilot was going to overshoot his mark, he flipped his plane over on its back and crashed into the forward part of the flight deck. His bomb exploded directly under the forward elevator, sending it, according to some (possibly exaggerated) reports by eyewitnesses, 400 feet in the air and putting a big bulge in the flight deck.

Immediately fire roared through the forward part of the ship. Fortunately the blaze was localized because the ship had been buttoned up before the suicide plane struck. Officers and men pushed through the smoke and flames to pour tons of water in the burning area. Gun crews tossed ammunition overboard until it got too hot to handle, and then broke out fire hoses and poured a steady stream of water into the magazines to keep explosions at a minimum. Within 17 minutes after the ship was hit the fire was under control, and within half an hour it was completely extinguished.

Reluctantly, *Enterprise* was withdrawn from action.

"We could have stayed there and operated at 80 per cent efficiency," explained her commanding officer, CAPT G. B. H. Hall, USN, at the time, "but we were due for an overhaul and the Fleet no longer needed us. So we came back."

IT WAS ABOUT TIME. Her frame was bent, fuel tanks destroyed, catapults damaged, and two large diesel generators aft had been blown against the overhead.

This was the second damage she had received within a month. In April, operating in support of ground troops fighting on Okinawa, the "Big E" had sustained a serious hit. Four suicide planes had gone after her and all were blasted by *Enterprise* gunners, but one had scored a near miss on the way down and had left its engine embedded in the port side of the carrier.

When *Enterprise* sailed for the States for the last time, streaming a 578-foot homeward-bound pennant—one foot for every day at sea—she had taken about as much punishment as the enemy could give her, and had given hundreds of times as much in return.

As she limped slowly into Pearl Harbor on her way to the States for repairs, a flight of fighter-bombers flew over her forming the letter "E." Then the planes swooped low alongside the ship so the crew could read the signs painted on their sides. Completed, the signs read: "For . . . Carrier . . . Champ . . . Take . . . Enterprise." They were surviving pilots who had flown from *Enterprise* during the first eight grim months of the war.

Today, *Enterprise* is in honorable retirement, in reserve, out of commission at the Brooklyn Navy Yard, N. Y. If necessary, she will be ready to carry on the tradition she had help establish so many years before.

FOR HER WORK during the later phases of the war, *Enterprise* and Air Groups 6, 10, 20 and 90 received a Navy Unit Commendation for their part in the Pacific campaign from 19 Nov 1943 to 14 May 1945.

She also received a Presidential Unit Citation for action in the Pacific from 7 Dec 1941 to 15 Nov 1942. The citation itself reads:

"For consistently outstanding performance and distinguished achievement during repeated action against enemy Japanese forces in the Pacific war area, 7 December 1941 to 15 November 1942. Participating in nearly every major carrier engagement in the first year of the war, *Enterprise* and her Air Group, exclusive of her far-flung destruction of hostile shore installations throughout the battle area, did sink or damage, on her own, a total of 35 Japanese vessels and shoot down a total of 185 Japanese aircraft. Her aggressive spirit and superb combat efficiency are fitting tribute to the officers and men who so gallantly established her as an ahead bulwark in defense of the American nation."

If our present-day carriers do as well, their existence will be more than justified.

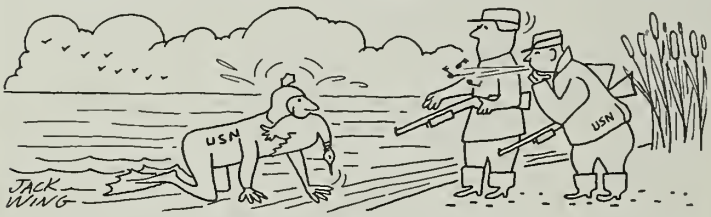
AFTER TAKING ALL the enemy had, *Enterprise* received overhaul and returned to NYC for Navy Day 1945.

TAFFRAIL TALK

TRUE, THE DUCK-HUNTING season has been over for these many months but we received a tip we'd like to pass on, and we're not sure if we'll remember it until next year.

It seems that the pilots of a certain VP-2 were having difficulties in recovering ducks shot down over deep waters. By a certain amount of fast talking and unspecified considerations they persuaded off-duty members of UDT 11 to act as retrievers. LTJG Philip Schlegel, officer-in-charge of the UDT detachment holds the record with a successful retrieve of eight ducks in a single outing.

Fall and winter water too cold for your web-footed friends? Nonsense! VP-2 and UDT 11 happen to be in Kodiak, Alaska.



Want to win an argument? Take the affirmative to the proposition that: There is NO (repeat NO) Fleet Post Office in San Diego.

The San Diego postmaster maintains a civilian post office in the vicinity of the naval establishment to which, he requests with some asperity, Navy mail should be addressed: "Fleet Station, U. S. Post Office, San Diego."

True, custom and usage have identified the facility as an FPO, but it just isn't so. If you want to abbreviate you might try with the PM's blessing: FLT STA USPO SDIEGO.

★ ★ ★

If you enjoyed the knot-tying article in last month's issue of ALL HANDS, you might be interested to hear more of the background of USS *Mt. McKinley's* (AGC 7) contest. Labelled "31-knot" in honor of you-know-who, it was conducted in three phases —a qualifying round of 31 "practical knots, hitches and bends;" 31 hitches for the semi-finals; and 31 bowlines for the finals. One minute was allowed for each knot. The grand prize was a gold watch and special liberty pass, and the runners-up received special liberty passes.

We pass on the details for the benefit of others who might be interested in this saltiest of hobbies.

★ ★ ★

The Navy will continue to see double for six more years. The Vaughn twins, Hospital Corpsmen Lew H. and Lee M., who graced the cover of ALL HANDS for the March 1953 issue, have reenlisted again. Since graduating from Hospital Corps School in 1942, their advancements, transfers, tours of duty—and reenlistments—have all been at the same time and place. Their tours of duty have included Bremerton, Wash.; Pearl Harbor, T. H.; Samar, P. I.; Yokosuka, Japan; and Great Lakes, Ill. Now, they're confusing the Marines at Camp Lejeune, N. C.

The All Hands Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 23 Jun 1955, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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Distribution: By Section B-3203 of the Bureau of Naval Personnel Manual the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

In most instances, the circulation of the magazine has been established in accordance with complement and on board count statistics in the Bureau, on the basis of one copy for each 10 officers and enlisted personnel. Because intra-activity shifts affect the Bureau's statistics, and because organization of some activities may require more copies than normally indicated to effect thorough distribution to all hands, the Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required; requests received by the 20th of the month can be effected with the succeeding issues.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Requests from Marine Corps Activities should be addressed to the Commandant.

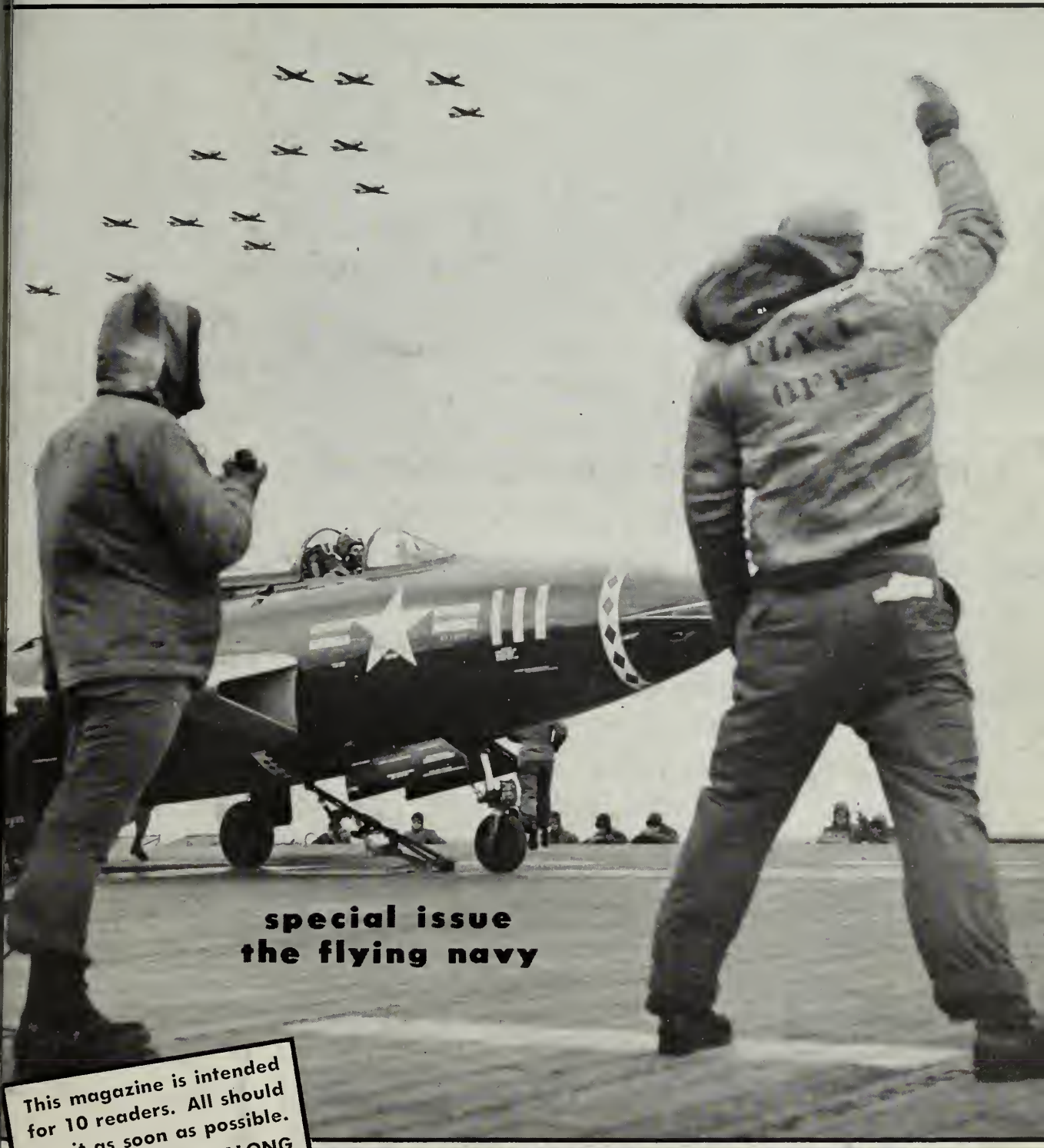
REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin.

• **AT RIGHT: ACTION below decks. C. Snayd, BT3, USN, is ready to light off one of the boilers of USS *Albany* (CA 123) as she rests in Norfolk.**

LEADERSHIP means WORKING TOGETHER

ALL HANDS

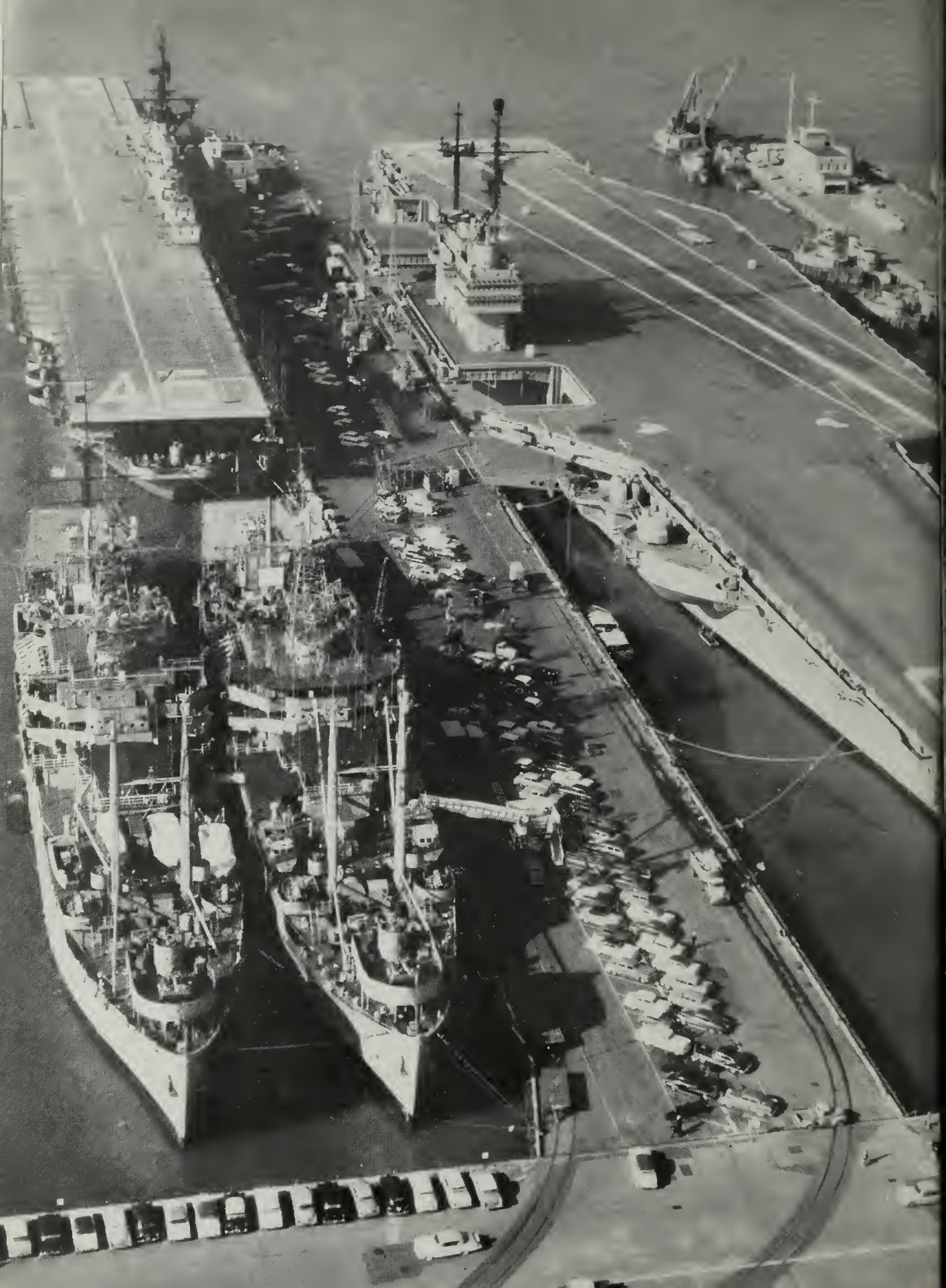
THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



special issue
the flying navy

This magazine is intended for 10 readers. All should see it as soon as possible. PASS THIS COPY ALONG

MARCH 1956



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

MARCH 1956 Navpers-O NUMBER 469

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• **AT LEFT: 'QUEEN SIZED' CARRIER, *USS Forrestal* (CVA 59) ties up at Norfolk pier where she takes space of four Navy capital ships. Surrounding her are *USS Taconic* (AGC 17), *USS Pocono* (AGC 16), *USS Valley Forge* (CVS 45), Essex class carrier of WWII, and *USS Macon* (CA 132).**

• **FRONT COVER: F96 COUGER JET gets the signal to rev-up for a catapult launching from the deck of *USS Oriskany* (CVA 34) while a flight of propeller-driven AD-4 *Skyraiders* passes over.**

• **CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.**

NEW HORIZONS ARE AHEAD for the Navy in the atomic age. Unusual view was taken with new wide-angle lens.

What's New on the Sea-Air Horizon?

JUST A LITTLE MORE than 10 years ago World War II ended. At that time the men, planes, carriers and weapons of the naval air force had undergone the toughest of tests—combat. They were battle-tested, and the victors. Yet within a decade the components which helped make that victory possible had undergone drastic changes and conversions. The pace has been a fast one.

Jet power, supersonic speeds, electronics, atomic warheads and fuels have all combined to change the appearance of the Navy—and there are developments yet to come.

Since World War II the Navy has made rapid strides with her forces underseas and on the surface, but it is in the field of aviation that some of the greatest and most significant changes have been wrought. Such familiar planes as the stubby F6F and the torpedo-carrying TBF have practically disappeared, to be replaced by radically different jet aircraft. Many of the carriers in action today were part of the returning Fleet during 1945-46, but they have been constantly changing until today a wartime Navyman would have a hard time recognizing them. New equipment and new designs have made them totally different ships.

With the scientists and designers turning out new planes, weapons and other improvements at a mile-a-minute clip, it has also been necessary to reorganize jobs, change training manuals and techniques, and make additions to the rating structure.

The changes have been felt in every section of the sea-air Navy.

If the finger can be pointed at any one reason for the complete overhaul of our flying forces it would probably be pointed at jet power. Because of man's ability to harness jet power (which really isn't new), a whole new horizon has been opened. However, in opening these new vistas it has presented the designers and planners with many problems that had never been encountered before.

The planes have changed in style, speed and concept. Building a plane that can fly at, or near, supersonic speeds means that the designers must learn much more about the characteristics of the air through which the plane must push.

This has caused the radical new designs that now are featured in Navy planes, designs that make the planes of World War II seem as out of date as the first biplane of the '20s.

New weapons that have been developed call for heavier aircraft—carrier planes are capable of carrying the atomic bomb—and jet power has made it possible to mount those weapons on almost every type of plane the Navy has. But the cycle of heavier weapons, more power and bigger planes presented a special problem to the Navy, which requires that planes must land and take off within as short a distance as possible on carriers.

As a result, the new carriers dwarf the older style. Predictions are that they'll get bigger instead of smaller. Perhaps USS *Forrestal* (CVA 59) and her sister ships best illustrate the newness of the Navy's flying forces.

Forrestal is huge. She has an overall length of 1039 feet, an extreme beam of 252 feet 4 inches and displaces over 59 thousand tons. Into *Forrestal* has gone all the know-how of thousands of men and the forward thinking of the entire Navy until she can handle any carrier aircraft in production today and any on the drawing board.

Her angled deck, a type which has also been installed on several other carriers, enables her to launch and retrieve planes faster and more safely than was thought possible a few years ago. Her steam catapults (which had proved themselves in earlier installations on other carriers) allow her to launch huge planes into the air regardless of whether the ship is headed down wind or not and in some instances they can launch a plane while the ship is standing dead still. This, of course, has been done before with the hydraulic catapult, but the improved steam catapult has greater safety features.

Arresting gear installed on *Forrestal* is vastly improved over that on older carriers and will sustain a weight drag capacity three times that

of previous arresting gear, another tremendous safety factor.

Take-offs and landings have been made safer by other mechanical means such as the Carrier Control Approach which controls planes returning to the carrier in low visibility. It works along the same lines as Ground Controlled Approach but has been perfected to a high degree aboard the carriers of today.

All the changes on *Forrestal*, and probably many others, beside, will be incorporated in USS *Saratoga* (CVA 60), which has just recently been christened; *Ranger* (CVA 61); *Independence* (CVA 62) and a fifth carrier still unamed, all of which are under construction.

Many of the innovations being built into the new carriers are either already installed on the *Essex* and *Midway* type carriers or are planned for the near future. USS *Antietam* (CVS 36) was the first of our carriers to have an angled deck installed several years back. The first installation was a temporary effort to test the theory. It has worked out so well that it is now becoming a standard look on carriers.

The big mystery about the angled deck is, as, one officer put it, "why someone didn't think of it sooner." This is a brief (and oversimplified) explanation: the angled deck—a British contribution— calls for a relatively small addition on the port side of the carrier and re-making the flight deck to allow planes to land on an angle. It also requires the relocation of the elevators and primary flight and rearrangement of the arresting gear. The conversion brings big savings through reduced flight deck accidents.

As a result of coming in at a slight angle the pilot can keep full power on his plane since, if he misses the wires, there is no danger of plowing into a number of parked planes or men and equipment. Instead, he merely hits the power, takes off again and orbits back into the pattern.

Another development which promises to make landings safer on carriers is the replacement of the landing signal officer with a four-by-six-foot mirror. The increased speeds of our modern jet fighters and the high landing speeds have made it more and more difficult for the LSOs to function quickly enough, but the mirror takes care of all instructions to the pilot without lag.

FAST JET PLANES like these F9F *Panthers* are among replacements for prop-driven fighters of World War II fame as protectors of the skies above the Fleet.

The mirror is placed about halfway up the deck of the carrier. Four beams of light are focused into the face of the mirror. This cluster of lights form a spot in the mirror which is reflected to the pilot in his approaching plane and at a single glance it gives the pilot an idea of where he is.

If the plane is right in the groove for a landing the spot is centered between a row of stationary colored lights, placed horizontally on both sides of the mirror. If the spot moves down, the plane is low. If the spot moves up, plane is high, etc. The center of the mirror is bull's-eye.

In conjunction with the mirror landing device the pilot has a special airspeed indicator, known as TRODI, in the plane which is mounted on the left side of the cockpit window. The device is color-coded for the landing speed and shows red if the plane is fast, green if the plane is slow and yellow if the speed is right.

The combination of mirror and speed indicator leaves the pilot free to put all his effort into hitting the

USS SHANGRI LA (CVA 38), one of the many carriers to get the new look, shows off her angled deck and closed-in bow while cruising off California.

TWO FOR THE MONEY—Mother plane drops experimental *Skyrocket* in air launching. This small plane was first Navy plane to fly faster than sound.

deck at the right moment, and marks the passing of what has been one of the most important men on board any carrier, the LSO.

The most revolutionary advance in the flying Navy, and the one which has caught the fancy of not only Navymen but the entire world is the birth of the vertical rising planes. These strange looking aircraft have changed some of the thinking of aviation experts, as they need no runways nor special facilities other than a small clear area. They rise like a helicopter, then level off once they have reached a safe altitude, and fly in the conventional manner.

Naturally, the new principles and techniques involved will require plenty of evaluation and tests before the new planes can be adapted to operational use, but the Navy has them under consideration and tests are underway to determine if they can really produce in a manner to change the whole principle of aviation.

At present the Navy is experimenting with two of these vertical risers, the XFV-1 and XFY-1. In appearance the XFV-1 resembles the four-fin torpedo with short, straight wings. It has an unusual tail composed of four fins located equi-distant from each other in the pattern of an "X." The XFY-1 has a rather stubby fuselage and features the delta wing.

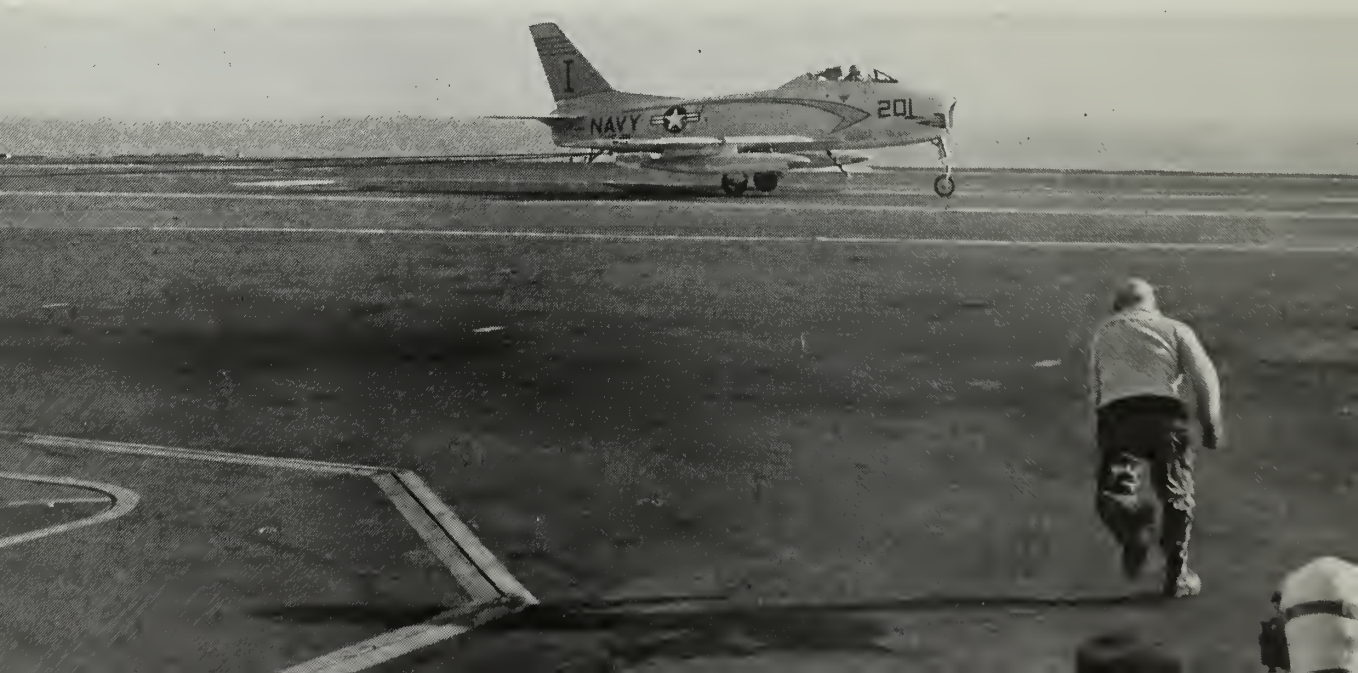
Helicopters, which really didn't come into their own in the armed forces until the Korean conflict, loom large in any plans for the future and today are numbered among the workhorses of the Navy. In recognition of their importance, a number of carriers have recently been redesignated. Henceforth many carriers' primary duty will involve the whirlybirds. The new designations are CVHE (escort helicopter aircraft carrier), CVHA (assault helicopter aircraft carriers). In addition to working off carriers, the versatile little choppers have flown from LSTs and the two proved such a successful combination during the Korean period that many LSTs are now carrying copters. They spotted mines, did reconnaissance duty, carried wounded personnel from the mainland and rescued downed airmen when their planes developed trouble.

For any amphibious operation the helicopters are a must. They ferry troops ashore, serve as liaison for the commanding officer of an operation and, in some cases, have been adapted to carry television cameras which send a picture of the entire operation back to the flagship.

The Navy is going all out in helicopter design and research and is testing a jet helicopter whose power is furnished by two 11-pound ramjets mounted on the tips of two of the rotor's 23-foot blades. Known as the HOE-1, this small copter can lift twice its own weight.

There are also two types of "rotor-

ROOM TO SPARE—crewman dashes across wide deck of *USS Forrestal* (CVA 59) to secure an incoming FJ-3 *Fury*.



NAVY WHIRLYBIRDS came into their own during Korean conflict. Here one brings in a rescued pilot.

cycles," portable one-man helicopters, which are being tested for possible use in observation, liaison, escape and small unit tactical maneuvers.

Another new gadget, which at present is neither fish nor fowl, has caused many a Navy flier to scratch his head and wonder just what the designers will think of next. This is the small "flying platform" which actually flies on a stream of air, minus any of the aspects generally associated with an airplane or heavier-than-air craft.

Wingless, the small circular device on which the pilot stands, uses the new principle of lift and propulsion called the ducted fan. Two propellers rotating in opposite directions suck air through holes in the platform and supply a downward thrust which supplies the lift. Enclosed in a circular casing which protects the pilot from the blades, the propellers are powered by separate engines developing less than 100 horsepower.

There are many uses to which the "platform" can be put, if they pass the Navy tests. The smaller ones, for instance, might eliminate highlines between ships when transferring passengers and equipment. They have been suggested as observation platforms for an officer directing shore fire or even, in larger sizes, as carriers for small groups of men landing on enemy-held beaches. How and what they actually will do and what spot they will occupy in the Navy of the future depend on the tests now being run on the unique vehicle by the Office of Naval Research.

There is also another new type aircraft being tested by ONR which is even stranger looking than the "platform." It is the "barrel" plane or ring-wing aircraft. It is a vertical rising aircraft consisting of a circular or barrel shaped wing which is open at both ends. The body of the aircraft is supported inside the barrel wing and is smaller in outside diameter than is the inside diameter of the barrel wing.

The ring-wing can be powered by conventional piston engine, a gas turbine or it can be jet propelled. It has the advantages of the helicopter and the airplane in that it can take off and land vertically and then level off and fly at fast speeds. This is one new development which is in the idea stage at present but which may well become part of the Navy of the future.

While the planes of the future provide a real challenge to the imagination it is the planes of today that the Navy is counting on to help retaliate against any aggressive action from any source. These stand unchallenged as some of the best and fastest fighters and carrier bombers in the world.

Some of the top planes now providing the Navy with a big punch are:

• F9F-8 *Cougar*—Operating at a speed listed as in excess of 600 mph and a range of more than 900 miles the *Cougar* has a ceiling of 40,000 feet and is one of the mainstays of carrier aircraft.

• FJ *Fury*—It has a speed over 600 mph and a range of 900 miles. It can operate up to 42,000 feet.

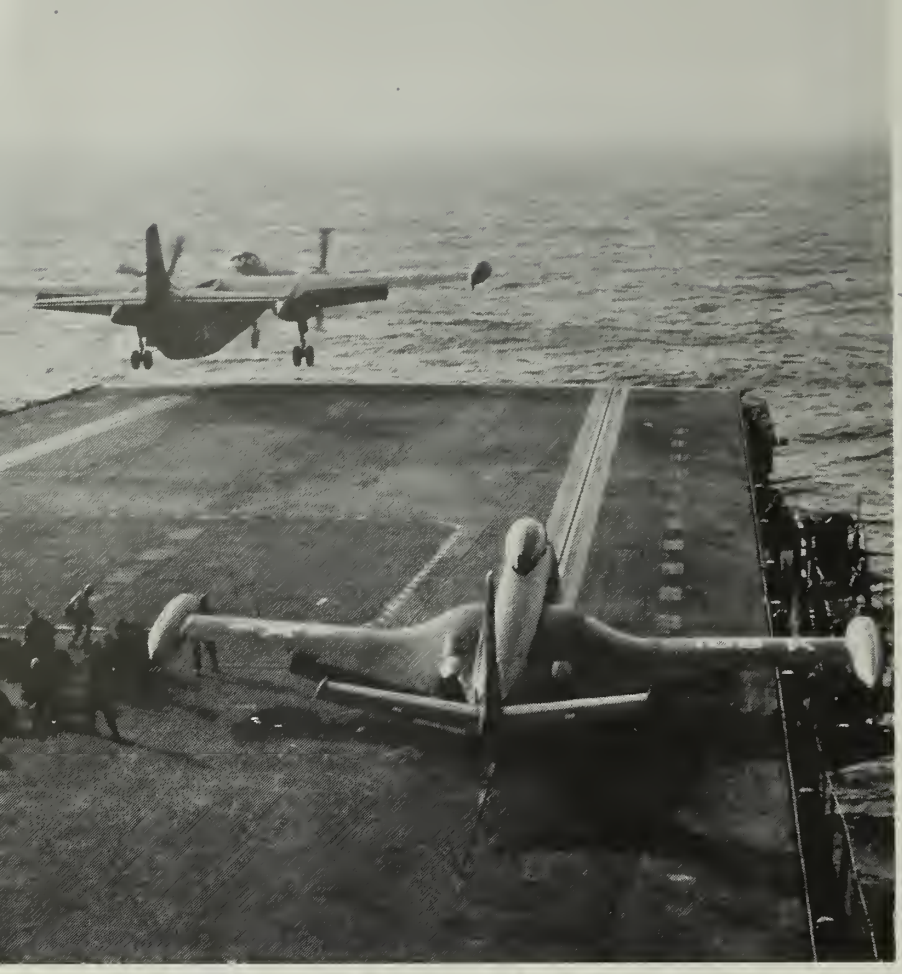
• F7U-3 *Cutlass*—In the 650 mph class with a ceiling of over 43,000 feet, this is tailless, has two engines and serves as the Navy's day fighter.

• F4D *Skyray*—Most of the statistics on this plane are still classified but it is an interceptor fighter with a delta wing and is the first shipboard fighter to win a world speed record.

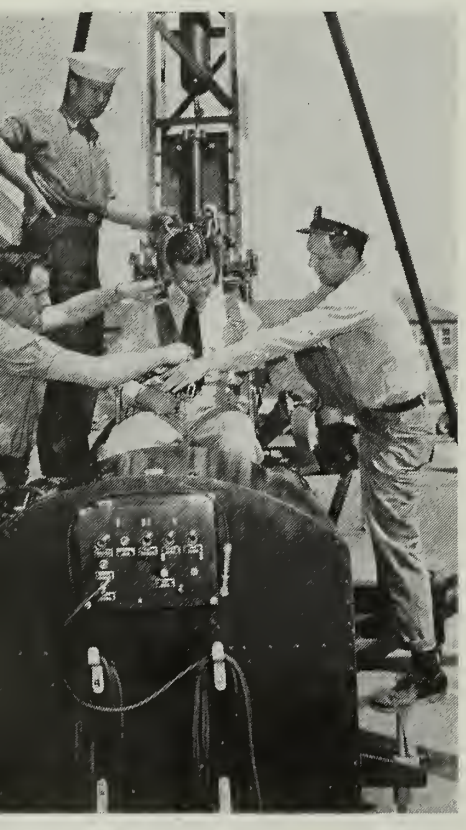
In addition the Navy has several planes which are expected to join the Fleet some time soon. These are the F3H-2N *Demon,* a general purpose plane; the F8U *Crusader,* which is well above the speed of sound class; the F11F *Tiger* which will carry guided missiles, and the S2F-2 *Sentinel,* designed for anti-submarine work.

Bombers are also coming in for increased attention by the Navy,

MODERN INTERIORS TOO — Escalators have been installed from ready room to deck in many overhauled flattops and new carriers to join Fleet.



AJ-2 *SAVAGE* IS LAUNCHED while F2H-3 *Banshee* is readied on *USS Midway* (CVA 41). *Below.* Pilot learns how to use life saving ejection seat.



thanks to jet power which allows heavier and more powerful planes to use carriers as landing fields anywhere on the 71 per cent of the earth covered by water.

Some of the new bombers, either in production or still in the experimental stage are:

• AD *Skyraider*—One of the few piston-engine type planes still in use, the AD serves as a jack of all trades and is big enough to carry an atomic bomb. It operates at a speed of 365 mph and has a range over 1000 miles.

• AJ *Savage*—This is part jet and part conventional power with two piston engines and one jet. The AJ flies at a speed of 425 mph and has a range over 3000 miles, flying at a ceiling of 40,000 feet. The AJ was the first carrier-based bomber capable of carrying the atomic bomb.

• P2V *Neptune*—Strictly a land-based plane, although some versions have been launched from carriers, the *Neptune* is an anti-submarine and general purpose patrol plane. Latest models of the plane have two jet engines in addition to the standard two piston engines. Speed varies according to version and it has a range of well over 4000 miles.

• A3D *Skywarrior*—Just joining the Fleet, the A3D will mark a new era in carrier planes as the heaviest and most powerful attack bomber that the world has ever seen. It is a swept-wing bomber with two turbo-jet engines and a 2300-mile range. It is equipped to carry the heaviest munitions utilized by the Navy and will give the Navy a plane that can carry the A-bomb to any spot in the world.

•A4D *Skyhawk*—This plane is the holder of numerous speed records and is rated by Navy fliers as one of the world's fastest planes. The smallest bomber with an atomic punch ever built, it measures less than 27 feet long with a wingspan of 39 feet. Other details of this plane are classified.

• P6M *Seamaster*—The first American jet flying boat occupies a big place in any future planning. Despite an early setback, the Navy is confident that the big flying boat will become a regular addition to Navy planes. It can be used as a mine layer and some conjecture has been made that it will serve as a frame for one of the first nuclear powered planes.

Today's version of the 1945 carrier man lives better, thanks to an increased awareness of things called "creature comforts." Habitability has become more than a luxury these days and has been called by the Chief of Naval Operations, "a military characteristic." Increased comfort pays off as a weary man, bounces back faster if he can relax completely during his leisure hours.

During the 10 years since World War II, the Navy has demonstrated its ability to change and adapt to any conditions. The new ships, weapons and planes, playing a vital part in the over-all defense of our country, are but a preview of the evolution of navies. Tomorrow holds even more changes and more startling revolutions in concept. Whatever they are, you can be sure that the flying forces of the U.S. Navy will be making use of them, in the Navy's primary mission, controlling the seas so that the military power of the nation can be projected into the enemy's territory.

—Bob Ohl, JOC, USN.

Nuclear Power for Ships in Today's and Tomorrow's Navy

The super dreadnoughts of yesteryear, the super-carriers of today, the "futures" listed in an upcoming naval budget—these are common subjects whenever a group of sailors get around to "chipping their teeth" about the Navy's ships. And there's plenty to talk about.

While inclusion in the budget is no guarantee that they will be built, the following craft are part of the Navy's billion-and-a-half dollar building program proposed in the budget for fiscal 1957 by the Department of Defense:

- A sixth super-carrier, following *Forrestal* (CVA 59) and USS *Saratoga* (CVA 60) in design, but incorporating lessons learned from them.
- A guided missile cruiser, nuclear powered.
- Six nuclear-powered submarines.
- Twelve guided missile destroyers and frigates.
- A nuclear plant for a seventh *Forrestal*-type carrier.

Returning from the world of dreams to that of cold reality, it's interesting to note that *Forrestal*, when she moved from Norfolk to operations off the Virginia capes, required "complete and sole use" of the Elizabeth River, the channel of the river's southern branch and the main channel into Hampton Roads—all on the way from Norfolk Naval Shipyard to the Chesapeake Bay area. Accordingly, the Coast Guard prohibited all ship traffic in the designated areas until the super-carrier had made good her passage into the vast Atlantic.

Elsewhere in the flattop world:

- USS *Franklin D. Roosevelt* (CVA 42), now being modernized at the Puget Sound Naval Shipyard, has been scheduled for reassignment to the Atlantic Fleet.
- Angled-deck overhauls have been scheduled for USS *Lake Champlain* (CVA 39) and USS *Intrepid* (CVA 11) at New York Naval Shipyard, while USS *Leyte* (CVS 32) is getting a regular overhaul. *Leyte's* touch-up began in February, while USS *Champ* is scheduled to enter the yard in mid-May. *Intrepid* follows in October.
- USS *Randolph* (CVA 15) is back with the Fleet following her conversion (at Portsmouth, Va.) to angled-deck status.
- USS *Monterey* (CVL 26), a 17,000-ton light carrier, has been placed out of commission for the second time in 10 years. She joined the Fleet in time to down 497 Japanese planes and sink 21 Japanese ships during World War II, then was mothballed in the spring of 1946. Recommissioned in September 1950, she has been serving Aviation Cadets as a trainer for the Naval Air Training Command at Pensacola, Florida.

Skate and *Swordfish* have been announced as the names for SSN 578 and SSN 579, two members of the Navy's nuclear-powered undersea fleet now being built. *Swordfish* is the first nuclear submarine to be built in a Navy shipyard and will be some 40 feet shorter and 300 tons lighter than USS *Nautilus* (SSN 571). *Swordfish* takes her name from the SS 139, launched in April 1939 and lost in January 1945, while on her 13th war patrol. *Skate's* predecessor was SS 305, launched in April 1943. Both of the new craft will be the second to bear their names.

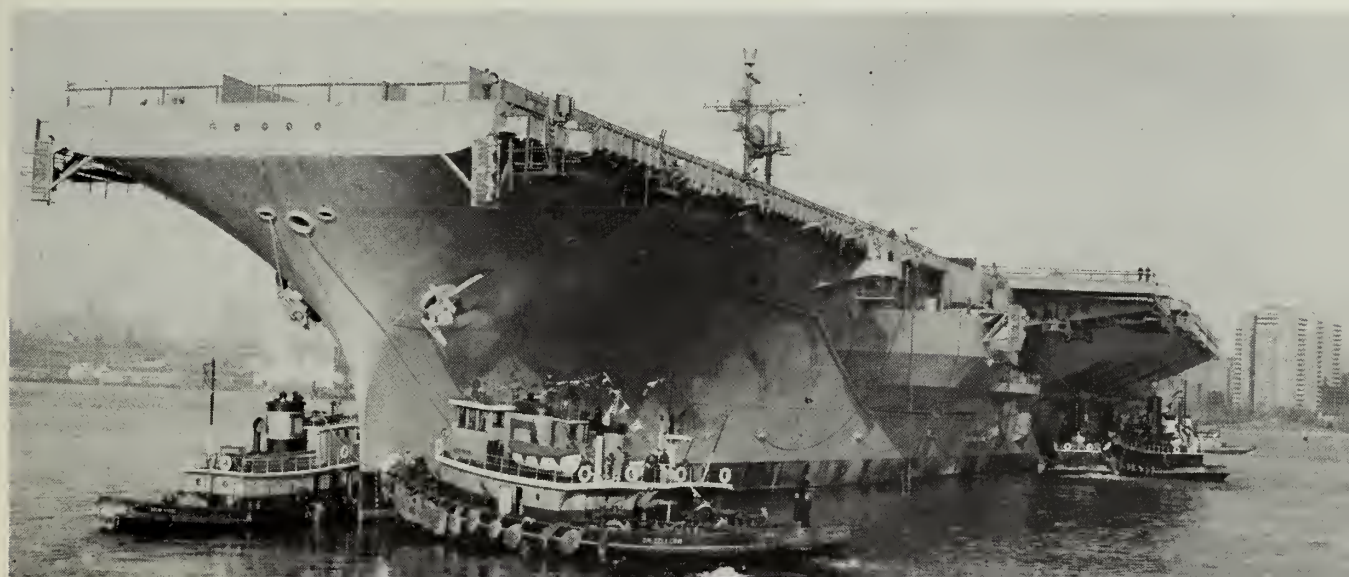
And speaking of names, three anti-submarines—the "hunter-killers"—have been given new monikers: *USS K-1* is now *Barracuda, K-2* is *Bass* and *K-3* is *Bonita.*

Also in the field of what's new, USS *Albacore* (AGSS 569) has proved to be so successful that her radical hull design will be used for the upcoming SS 580, SS 581, SS 582 and the nuclear-powered SSN 585.

Albacore is shorter and fatter than conventional submarines, with a small bridge, blimp-like tail and a single five-bladed screw. This design has been found to add greater range, greater underwater speed and improved maneuverability.

Four ocean radar station ships, floating segments of the continental air defense system, have received their commission pennants. They are USS *Scanner* (YAGR 5), *Locator* (YAGR 6), *Picket* (YAGR 7) and *Interceptor* (YAGR 8). Eventually these four, all converted from commercial hulls at East Coast yards, will operate off the Pacific Coast, using San Francisco as a home port and yard. Four similar ships are already in operation off the East Coast of the U. S.

ANOTHER SUPER CARRIER hits the sea. It took twelve tugs to tow *USS Saratoga* (CVA 60) to berth after launching.



The Group Nine Navy

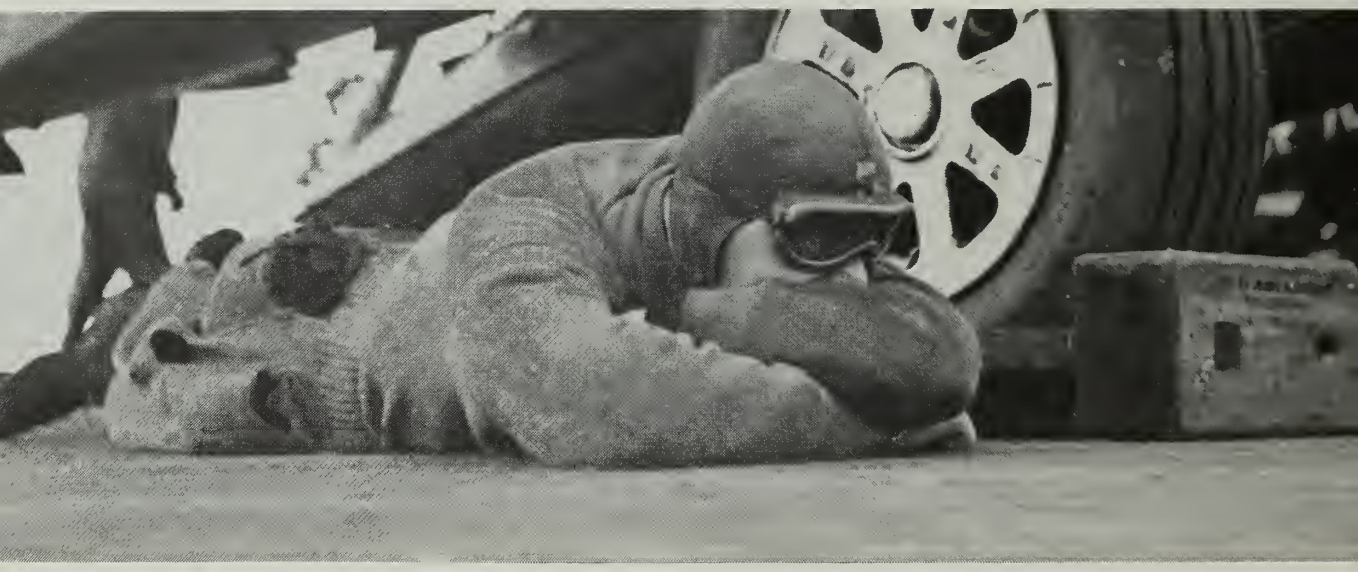
"ALAMEDA TOWER, this is Navy 1234 at two thousand over the Golden Gate Bridge. Request landing instructions. Over."

"Navy 1234, this is Alameda Tower, Cleared into traffic pattern, runway three six, wind north one six. Check base wheels down and locked. Over."

"Alameda Tower, this is Navy 1234, cleared into traffic pattern, runway three six, wind north one six. Out."

"Alameda Tower, this is Navy 1234. Turning base wheels down and locked."

"Roger Navy 1234, cleared to land."



PLANE PUSHER on flattop's deck is lying down on the job. He'll pull wheel chocks while shielding face from flying dust.

The plane touches down on the runway and the pilot listens to the air controlman in the tower give taxi instructions. Once at his destination, a ground crewman directs him to a parking spot and the plane-handling crew begins tying down the aircraft.

The above conversation, or a variation of it, takes place many times a day or night, throughout the Navy at air stations and on aircraft carriers. Every time a plane lands or takes off from a carrier or air station, the Air Controlman is on the job, assisting the pilot by relaying vital information and clearances of his right of way.

Group Nine Navy

The Air Controlman rating is one of the 15 ratings in the Aviation (Group IX) Ratings. He is one of a group of men who are members of the team that actually keeps the Navy's air force ready and in the air. The success of a Navy air group or squadron does not hinge on the pilots and aircrewmen alone. A large and very important segment on the flying team is the men in these 15 ratings, both flying and non-flying personnel, ground crews and deck crews, and training and supply specialists.

Since the airplane is one of the Navy's greatest offensive and defensive weapons, it's only natural that the men who fly, repair and maintain these weapons have to be the best in the world. The capabilities and teamwork of this group of men were well proven during World War II in the Pacific when Navy pilots and gunners chalked up a shoot-down score of 14-1 over enemy Japanese pilots.

Versatility is the word describing both the Group Nine Navy and the equipment it uses. The explanation is simple: the flying Navy has to be triphibious in its thinking and in its operations. It must have aircraft that are at home not only over but on the water—and on the decks of different types of ships ranging from carriers to LSTs—and also on the land.

It takes a lot of time, money and individual effort on the part of the trainees to learn their jobs thoroughly. The major training centers for the Navy's enlisted airmen are located at three NATT Centers: Memphis, Tenn.; Norman, Okla.; and Jacksonville, Fla. Headquarters for this vast "Air University" is at Chief of Naval Air Technical Training Memphis, Tenn. Let's take a quick glance at the different aviation ratings: what they do, what they must know. A good example would be our aircraft that just landed at NAS Alameda.

Landing on AC Current

As the pilot approached the air station, he radioed for permission to enter the traffic pattern and land. The man in the tower who relayed the necessary information and clearance was an *Air Controlman* on watch in the tower.

The most critical moments in normal flight are the take-off and landing. It's not enough that the pilot knows how to operate his controls. He must also be assured of clear skyways and landing strips free of other planes. This assurance is given him by the AC, the "air traffic police."

Besides the planes actually landing or taking off, these men and women in the AC ratings must keep a close check on each plane operating in the vicinity of their tower, tell pilots when to take off and land and flash warnings to planes in flight when trouble is imminent.

ACs assist in the control and direc-

tion of air traffic by means of radio, radar, flashing light signals and flag hoists. They provide the pilots with information on air traffic, navigation, and weather conditions. Another of their duties is to operate and make minor adjustments to GCA (ground controlled approach systems), to interpret targets on the radar screen and use standard plotting procedures for locating the position of planes.

To understand better the problems and situations of pilots of Navy aircraft, ACs should also have a working knowledge of such technical subjects as aerology — the science of weather—navigation, communications, tactics, capabilities and characteristics of aircraft, principles of the operation of radar and they must be able to read and make corrections to aeronautical charts and maps.

Another important function of the Air Controlmen is the operating of ground - controlled and carrier-controlled approach equipment. Much of the paperwork involved in dispatching all flights and coordinating control of all flights is done by the ACs.

Besides their own air station's air traffic regulations, the ACs are required to know the regulations of the Civil Aeronautics Authority regarding standard airport traffic control procedures. To round off their training, as these men go up the rating ladder, they must pass the equivalent of the Junior and Senior Federal CAA Tower Control Operator's examination.

Air-Minded Mechs

One of the oldest, if not the grandpappy of them all, is the rating of *Aviation Machinist's Mate.* As is quite evident, the safe and efficient operation of any aircraft depends largely upon the safe and reliable performance of its engines. If a pilot notes anything unusual about engine performance during the flight, the information goes to the AD. The AD is the man responsible for this job, keeping the engine and other mechanical equipment in perfect working order.

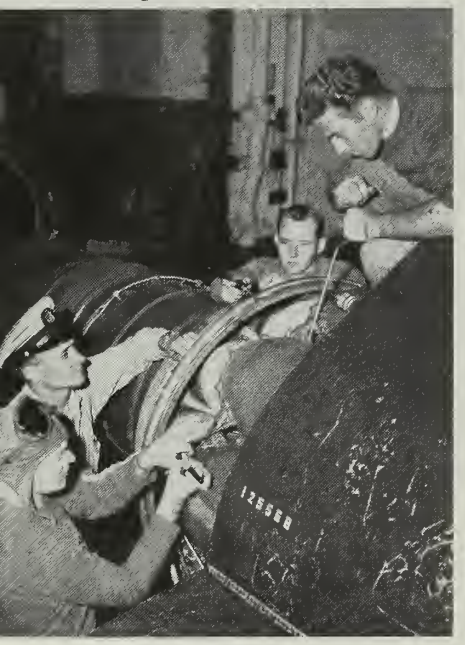
Anything from changing the oil to a complete overhaul of an engine is the responsibility of the Navy's ADs. The more routine duties, such as lubricating, refueling, changing tires, warming up engines and cleaning the airplanes, fall to the lower rated men. As the men advance up the rating ladder, many of them are assigned to the larger aircraft as flight engineers. Their job involves testing and operating engines, controls and other equipment both before and during flight and when taxiing, taking off, climbing, descending and landing.

The theory and operation of aircraft for servicing, maintaining and repairing them are basic skills of all the Navy's ADs. Like men in any other Navy rating, the aviation mech may become especially skilled in one phase of engine servicing, repairing and maintenance, but he still must know all the other parts of the AD rating.

- He must be able to service, maintain, install and repair engines; adjust valve clearance, time magnetos and make compression checks; name and operate common hand tools, power-driven tools and various measuring instruments.
- He must know aircraft handling on the ground, in the water and in ships; proper method of loading, securing, and storing equipment aboard aircraft; procedures for warming up, testing, and stopping engines. He must qualify and obtain a license to taxi aircraft, using the plane's engines as source of power.
- He must understand hydraulic and electrical principles as applied to propellers, and be able to repair, remove, service and install propellers and their accessories; check the balance, pitch and track of propellers. He must know methods for heat-treating, straightening propellers and testing their strength.
- He must be able to service,

MANY SAILORS with varied aviation skills put and keep planes above the Fleet. *Above:* Gas gang fills 'em up. *Below:* Airman tows jet for spotting.

NAVY PHOTOG in high altitude gear checks camera's automatic shutter recording results of bombing mission.



JET ENGINE is worked over by Aviation Machinist's Mates on *USS Boxer* (CVA 21). *Below:* Aviation Electronics Technician installs radio receiver.

maintain, install and repair carburetors and fuel systems; trace fuel lines, clean strainers and check valves and fuel cells for leaks or sediment; test flow, and operation of carburetors and water injection systems.

Most of today's Aviation Machinist's Mates received their basic AD training at the Class "A" School which covers the fundamentals of aircraft engines, basic principles of the theory of flight and of the construction, weight and balance of aircraft, reciprocating powerplants and line operations, reciprocating powerplant accessories, engine maintenance and jet powerplants and maintenance.

A large portion of their training has been "on the job," supervised by the senior rated ADs. In addition, there is an AD "B" school available to highly qualified senior petty officers in the AD rating.

Tin Benders

The men in the rating of *Aviation Structural Mechanics* have the job of maintenance and repair of aircraft wings, fuselage, tail, control surfaces, landing gear and attending mechanisms. AMs fabricate sheet metal and install, maintain and repair tubing systems and flexible hose.

The repair and maintenance of rubber equipment, such as self-sealing fuel cells and tires and tubes, the repair of fabric-covered surfaces of aircraft and the use of spray-painting equipment are all a part of their work. AMs also maintain ejection seat equipment, and mechanical parts of aircraft cabin pressurization and air-conditioning systems.

Aviation Structural Mechanics must be top notch welders. They must be woodworkers also, making wooden forms, blocks, jigs and templates for the manufacturing and repairing of aircraft structural parts. Hydraulic systems which operate the aircraft landing gear, flaps, bomb bays, automatic pilots and brakes are also the worry of the AMs.

The "tin benders" (as the AMs used to be nicknamed when their rating was known as Aviation Metalsmith) must be able to fabricate and repair aircraft sheet metal parts, metal fittings and tubing by cutting, flaring, bending, threading and assembling.

Most AMs receive their basic instruction at the 14-week course of training at the Aviation Structural Mechanics Class "A" School which covers such subjects as welding, aircraft sheet metal, fabrics, plastics, rubberized equipment repair, aircraft finishes, aircraft hydraulics, aircraft structures and repairs and inspections.

The senior petty officers in the AM rating are eligible to become aircrewmen on the larger aircraft. Advanced Class "B" schooling is also available to these men.

Sparky and Twidget

One of the most highly technical ratings in the Navy today is that of *Aviation Electronics Technician*, who carries the moniker of "twidget" (apparently on account of their gadget-twisting occupation). Because of the dependence by our modern Navy on radio, radar and other electronic devices for rapid communications, efficient navigation, controlled landing approaches, detection of and guidance to enemy or other objectives, electronics equipment must be kept in perfect operating condition.

Close relation of the AT is the *Aviation Electronicsman*, better known as "Sparky" for understandable reasons. The AL ratings will be merged with the AT ratings in 1958.

Following is a rundown of the AT's responsibilities. In his daily work, the Aviation Electronics Technician uses such instruments as voltmeters, ammeters, and ohmmeters. He operates the various items of electronic equipment in order to evaluate performance. This includes energizing and securing the equipment, setting operating controls, making operator's adjustments, and reading and interpreting dials, built-in meters and cathode ray tube presentations—images on a radar or other screen.

Besides the day-to-day maintenance of the electronic equipment, which includes cleaning and lubri-

cating, the ATs make circuit repairs indicated in their test analyses. This could include anything from replacing a tube or wire to putting in a completely new assembly.

The Class "A" School for Aviation Electronics Technicians is approximately eight months long and includes training in electronic fundamentals, transmitter fundamentals, International Morse Code, communications systems, radar electronics fundamentals, operational maintenance and the flight phase, which includes actual aerial flights.

AQs Deliver PDQ

Another highly technical aviation rating (and closely allied to the AT rating) is that of *Aviation Fire Control Technician.* Techs in this rating (they also go by the name "Tex") are charged with the maintenance and repair of the highly complex equipment that fires the guns on Navy's combat planes.

AQs inspect, clean, lubricate and make operational tests and adjustments of sights, bomb directors, armament control and turret control systems. They also work on computers, gyros, optical components and fire control radars. AQs, like the ATs, must be able both to read and to draw schematics of their various electronic equipment.

The men in this relatively new rating must be able to analyze electrical and electronic test data and use this information as it applies to aviation fire control equipment. They must also be able to set or determine values to be used for measuring purposes.

The basic school for apprentice Aviation Fire Control Technicians is an eight-month course. Subjects covered in this Class "A" School include fundamentals of AC and DC electricity, basic electronics, optics and hydraulics as applied to aircraft armament control and bombing systems, aviation fire control and bombing problems and their solution by electronic and electromechanical means. To all this add the following and you get the basic picture on requirements: fire control and bombing radar fundamentals, and casualty analysis, test, and adjustment, and technical maintenance of aircraft control and bomb director systems.

How to Make Good Punch

Navy airplanes seek out and destroy the enemy. While the ATs and AQs work the equipment that seek the enemy, it's the *Aviation Ordnanceman's* job to prepare the plane for its mission of destruction. If a bomb doesn't explode, or a gun fire, it is useless. The Aviation Ordnanceman is one of the specialists responsible for the perfect working order of armament on Navy planes—he makes a good punch.

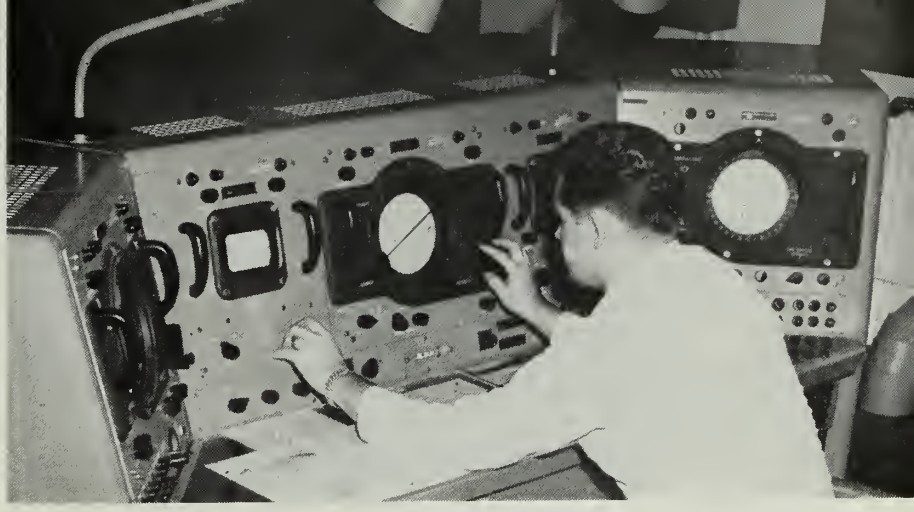
The AOs are the men who assemble and install fuses in bombs and projectiles, load the bombs, rockets, torpedoes and guided projectiles in the aircraft. They bore sight and aline direction sights for shooting, bombing, torpedoing and launching rockets. The Aviation Ordnancemen are also charged with the handling, stowing and issuing of munitions and personal small arms for use in aircraft.

The Aviation Ordnancemen must be able to maintain, repair and overhaul machine guns and cannons, sight and load gun cameras on photographic airplanes. The AO must know the fundamentals and theory of internal and external ballistics, the principles of projection of missiles from aircraft and the forces affecting their direction.

The 14-week course at the Class "A" Aviation Ordnanceman School trains the embryo "Guns" in small arms, aircraft machine guns, 20mm automatic guns, technical publications and ordnance electricity, aircraft munitions, bombs and fuses and the operation of aircraft armament such as range, malfunctions, installation, sight and general servicing.

Missileers with Muscles

Another rating closely allied to AT, AQ and AO is the rating of *Aviation Guided Missileman.* Like the AQ rating, the GF specialty was



NAVY'S TYPHOON TRACER—Aerographer's Mate tunes in weather tracking radar which can pinpoint storms 200 miles away with less than five miles error.

PLANE'S WING mechanism is repaired by AM on flight deck. *Below:* Air Controlmen serve as 'traffic police' at NAS.

established only in recent years.

After long research and thousands of tests, guided missiles can now be launched from land, sea and air positions. Their flight is controlled by intricate internal mechanisms which are maintained, serviced and overhauled by the Navy's Aviation Guided Missilemen.

When a guided missile arrives at the ship or station from the factory, the GFs must unpack and prepare the missile sections for assembly. Each section of the missile must be checked with test equipment such as the voltmeter, ammeter, ohmmeter, multimeter, megohmmeter, tube and battery tester, signal generator and spectrum analyzer.

Missile systems which the GFs must maintain and keep in top running order include missile guidance, control and telemetering systems, and extending to such tongue twisters as the electrohydraulic, electropneumatic and electromechanical systems.

Another important function of the "missileers" is the supervising and training of lower rated personnel in testing and repairing guided missile sections and components. Also, individual logs and histories of each of the missiles must be kept up to date by the GFs.

Although not yet established, the Aviation Guided Missileman school will train Navymen in the fundamentals of electronics, radar, hydraulics and pneumatics, missile guidance including gyroscope and accelerometer principles of operation, and air-launched missile assembly, testing, loading, repairing and operational employment.

Putting Electricity Back in the Air

The number of generators, motors and transformers in a single airplane would amaze you. And the maze of connecting wires requires the care of a man nothing short of an expert. The Navy's *Aviation Electrician's Mates* ("Sparks" to their shipmates) have the job of maintaining, adjusting and repairing the various generators, converters, lighting, control and indicating systems found aboard a Navy plane.

Instruments such as the temperature indicator, tachometer, synchronizer indicators, position indicators for landing gear and wing flaps and the service and repair of automatic pilots come under the care of the AEs. If you've ever had any trouble with the ignition system in your automobile, you can readily imagine the troubles that can possibly confront the Aviation Electrician's Mate when he works on a plane's ignition system.

Aircraft compasses, including remote indicating compasses and compass repeaters, are also the responsibility of the Aviation Electrician's Mates. Naturally, AC and DC electricity fundamentals come as second nature to the AE. He must also know the theory and principles of operation and calibration of the different aircraft mechanical, electrical, vacuum and gyro instruments.

In the basic Aviation Electrician's Mate School, which is 22 weeks long, the AE striker is trained in basic electricity, amplidyne systems, electric propellers, motors and engine starters, ignition systems, electrical power supply systems and line maintenance.

The Sunshine Boys

One of the most important single factors affecting air operations is the weather. In addition to using the generally available information on weather forecasts, the Navy must maintain its own weather observing experts, the Aerographer's Mates. The AG is the observer, forecaster and distributor of accurate weather information—and he's particularly important in those areas not covered by the regular weatherman.

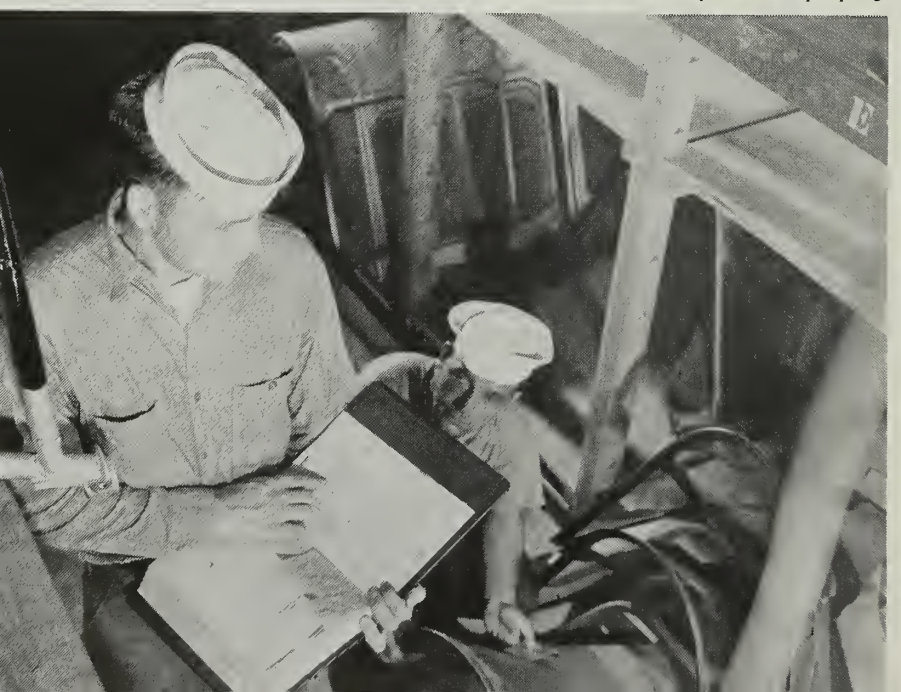
No, he doesn't depend on his bunions to indicate to him when it will rain, or a hedgehog to tell him it's going to snow. Instead, he uses such aerological instruments as the barometer, thermometer, anemometer, clinometer and psychrometer to gather the weather data.

From his information, the AG can prepare weather charts and also compute ballistic wind and density of the upper air for more accurate antiaircraft and surface firing.

Using both instruments and estimation, the AG can determine the ceiling, visibility, wind velocity, and cloud coverage for use in making local forecasts. As the ship or station's weatherman, he makes both short range (6- to 12-hour) and long range (36-hour) weather forecasts.

Training in the 14-week Aerographer's Mate School includes instruction in meteorological instruments, weather codes, adiabatic charts, practical work in preparing charts, using and maintaining instruments, balloon soundings, upper air soundings, weather and cloud observations and weather map analyses.

CHECKING THE BOOKS is a big time operation for the Aviation Storekeeper who is in charge of the many and varied items needed to keep the Navy flying.



AM
AVIATION STRUCTURAL MECHANIC

TD
TRADEVMAN

AB
AVIATION BOATSWAIN'S MATE

PR
PARACHUTE RIGGER

AG
AEROGRAPHER'S MATE

AC
AIR CONTROLMAN

Boats in the Clouds

Wherever you travel in the Navy, you're going to have the boatswain's mates—and the flying Navy is no different. The air "deck gang" is guided by the senior petty officers in the *Aviation Boatswain's Mate* rating.

If you've ever seen carrier operations, either on film or for real, you are impressed with the deft handling of aircraft. As soon as one is launched, another is quickly jockeyed into place, ready to be catapulted from the deck. Besides assisting in the launching of aircraft, the aviation "Boats" is charged with the care and maintenance of arresting gear and barriers. They operate the winches, cranes, booms and ship's elevator controls.

ABs assist in the fueling and defueling of aircraft and in the loading of aviation gasoline and lubricating oils aboard ship. And like all good boatswain's mates, they operate small boats to service and moor aircraft, and in rescue and salvage operations.

Aviation Boatswain's Mates can qualify as flight crew members, acting as equipment riggers, supervising the loading and securing of cargo. Also like his surface counterpart, the AB is quite deft with knots and splices, deck equipment and handling lines and cables.

There are two sections to the 16-week Aviation Boatswain's Mate School. In the first section, he is taught aircraft indoctrination, fundamentals of hydraulics, physics, electricity and mechanics, wire-rope splicing, catapults, aviation seamanship and firefighting.

In the second phase of his training, usually received aboard an aircraft carrier, the AB striker learns flight deck operation, catapults, arresting gear and gasoline handling.

Riggers of Life Lines

Parachute Riggers in the Navy have a standing guarantee of their product: If the one you have doesn't work, bring it back and they'll give you a brand new one at no extra charge. Luckily, the PRs have never had to stand by their guarantee. To the Navy's PR falls the highly responsible job of keeping parachutes and other aviation survival equipment in perfect condition.

In addition to being the lifesaving equipment of aircraft crewmen when they have to bail out, parachutes are also used to drop urgently needed medicines, food and supplies to isolated disaster victims.

PRs are charged with the job of maintaining, storing and issuing oxygen and carbon dioxide equipment. Safety belts and shoulder harnesses are the charge of the PRs. Having charge of aviation survival equipment, the PRs equip and pack all types of life rafts, make patches and minor repairs to rubberized fabrics including rubber life jackets and life rafts.

The Class "A" Parachute Rigger School provides 15 weeks' training in parachute packing, sewing machines and fabrics, oxygen and carbon dioxide, survival equipment, and ends up with the acid test: packing your own parachute and using it to make an actual jump.

Keeper of the Winged Keys

With the large-scale development of aviation in the Navy has come the problem of supply. The various types of naval aircraft with their specialized parts, equipment and supplies have brought a demand for men specially trained in aviation supply. The purchase and stock control of aviation stores, with their attending correspondence work, are jobs for the *Aviation Storekeepers.*

As well as being a good stock room clerk, the AK must be a good bookkeeper and part yeoman. AKs store, issue, and control such items as flight clothing, aeronautical materials, spare parts, and ordnance, electronic, structural and engineering equipment.

As a bookkeeper, the AK maintains stock control of aeronautical equipment and estimates future needs of equipment. He inventories not only his stock but also the aircraft in his squadron.

As part of his yeoman duties, the AK (like the SK, he's known as "Stores") records incoming and outgoing correspondence, keeps his files and stock control cards up to date and makes entries in records kept, prepares reports and returns on his aviation supply activities.

At the 12-week long Aviation Storekeeper School, the AK striker learns to use adding, calculating and duplicating machines and brushes up on his typing. Other subjects taught in the AK school include basic aviation supply, catalogs and publications, aviasupply afloat and ashore, office procedures and practical application of principles and procedures as applied to electronics, airframe spares, aircraft accessories and parts, aircraft fluid systems, engines and parts, engine accessories, propellers and control equipment, and instruments.

AK
AVIATION STOREKEEPER

PH
PHOTOGRAPHER'S MATE

AQ
AVIATION FIRE
CONTROL TECHNICIAN

GF
AVIATION GUIDED
MISSILEMAN

Shutterbugs Have You Framed

Everyone likes to look at pictures, and the Navy is no exception. But photography has a big place in the Navy because it is used in everything from medicine to reconnaissance of enemy positions to identification pictures. The official Navy photographs are shot, developed and printed by the Navy's *Photographer's Mates.*

Activities of the Navy and its men, both in war and peace, are visually recorded on film by PHs. Photographer's Mates, using both still and motion picture cameras, make these pictorial records of technical, historical and newsworthy events aboard ships and at shore stations.

Formerly, there were both aerial photographers (AF) and surface photographers (PH), but these have since been combined and all men in the rating given the PH designation Some PHs have a chance to become aircrewmen, when they perform duties as members of flight crews, using equipment such as the standard oblique aerial reconnaissance cameras and motion picture cameras for aerial flight.

In fighter type aircraft used as aerial reconnaissance planes, the

PLANES line aircraft carrier's flight deck, which has temporarily been turned into a private beach as Navymen of all ratings relax in the Mediterranean sun.

photographer supplies the film to the Aviation Ordnanceman who loads it into the airplane's gun cameras.

Besides being able to obtain good results with the different types of cameras he uses, the PH must be able to test, adjust and perform preventive maintenance on his equipment.

The 16-week Photographer's Mate School at Pensacola, Fla., teaches budding photographers the fundamentals of photography, including chemistry, photographic emulsions, operation of different types of cameras and photographic equipment, fundamentals of motion picture photography and theory and practical work in elementary aviation photography.

Traders Sell Safety and Training

A very important phase of aviation is training. It has been proved that simulated training, besides being low cost, is much safer for both the instructor and the trainee. The Navy has adopted many simulated trainers known as Special Devices. The specialists who operate and maintain these devices are the *Tradevmen* (the Tradev part is short for Training Devices).

These various types of training aids are used to simulate actual operating conditions. Trainers have been developed that simulate the actual operation of the different types of aircraft from trainer to high speed jet now in use by the Navy.

These simulated trainers are not confined strictly to the aviation phase of the Navy. Many of these type trainers, such as the Submarine Attack Teacher, and the Support Arms Evaluator (See "These Fakes Save Lives, Time, Money" June 1955 ALL HANDS p. 2) are used by the submarine and destroyer Navy.

But the biggest field of work for the TD (he's also known as "Trader") is in the aviation trainers. One of the newest simulated trainer is the LAT —Landing Approach Trainer. This trainer is designed to give the student aviator who has had no previous flying experience a clear understanding of how a landing approach looks to the man in the cockpit.

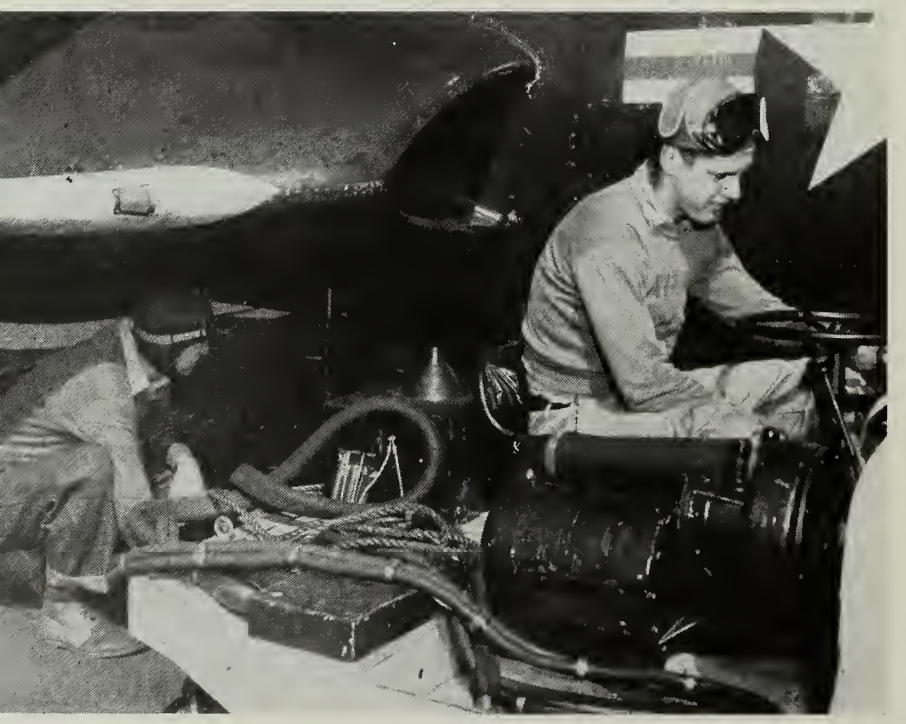
"Flying" a trainer is done in much the same manner as in a Link Trainer. A movable crab controls the projected runway image to give the illusion of the aircraft's turning from its base leg to the final approach to the field for a landing.

The crab controls the projected light beam during the trainer's turns and adjusts it to the relative height of the trainer as well. Thus as the trainer descends, the runway image flattens out, giving the same type of view that a pilot sees in making a landing approach in a real plane.

Not all of the trainers, of course, are intended for the student aviator. Many are used as preliminary indoctrination for pilots being checked out in a different type of aircraft with which they are not familiar. Also, many pilots who are desk-bound, or in a crowded locality and don't have many opportunities to maintain their instrument flying skills, take advantage of the Link Trainers.

Any man who has put in time on these trainers will vouch for their simulated reality. In fact, a "Link Legend" from Washington, D. C., has it that a pilot inadvertently allowed his trainer to get into a spin.

AVIATION BOATSWAIN'S MATE is the man in charge of the plane handling crew. Here, AB and crew member get ready to start engine of F2H *Banshee*.



The Tradevman instructor told him to recover, he was nearing the ground, but the unfortunate man was thoroughly confused.

Finally, in exasperation, the instructor shouted: "You're going to crash!" Hypnotized by the reality of the simulated flight, the student yanked back the hood, bailed over the side of the trainer, and broke a leg on the floor four feet below.

Along with actual operation of the trainers, Tradevmen are also qualified to maintain, install and repair training aids and devices. The TDs train both officers and enlisted men in such fields as gunnery, aviation, navigation, seamanship, communications, engineering, tactics of ships and aircraft, recognition of ships and aircraft, and electronics.

It All Comes From the Air Pool

The men in these 15 aviation ratings, together with the pilots that fly the planes, combine to make the flying Navy the topnotch organization that it is. But we still have one source to consider: the men in the rate of AIRMAN.

The Airman is the large part of the "muscle" in the aviation ratings. Pushing airplanes around the flight deck or on the line, washing and polishing airplanes, and messcooking, are hazards ever present to the men in the Airman rate.

Unless he earns his AN rate in the Fleet, the man usually attends Airman School before going on to some technical school such as AD, AT, AO, or any of the other aviation schools.

Since the men attending the AN "P" School are, for the most part, just out of high school, their knowledge in mathematics is put to good use in learning the elementary principles of weight and balance as these factors affect the control, range, and stowage of equipment aboard aircraft. This mathematical know-how is also helpful when the students scratch the surface of the basic theory of flight.

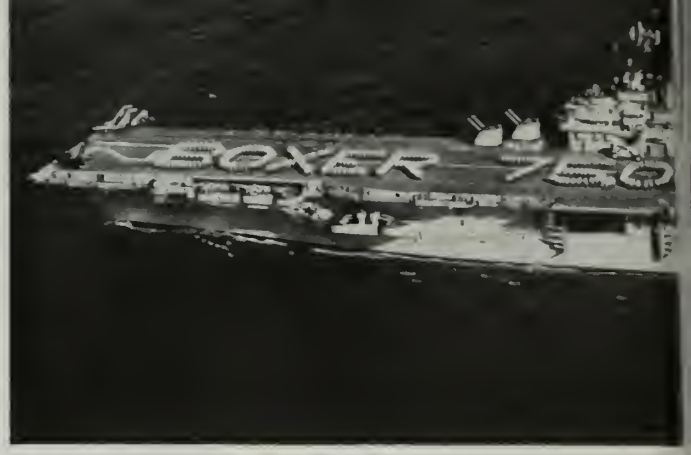
The Airman School serves as a sort of "kindergarten" for the Navy's embryo airmen. It prepares him for both his upcoming technical schooling and for duties later on as an Airman in the Fleet.

Whichever rating he is striking for in the Group Nine Navy, the Airman knows he's headed for a job with a big future.

—Rudy C. Garcia, JOC, USN.

MAN BEHIND THE FIRE POWER of naval air force is the Aviation Ordnanceman loading 20mm ammo in an F9F. *Below:* Parachute Riggers fold 'silk' at sea.

IN THE FOG of Boston's harbor the crew members of *USS Antietam* (CVS 36) spell out a friendly greeting to city.



USS BOXER (CVS 21) announces landing record with crew.

Carrier Crewmen

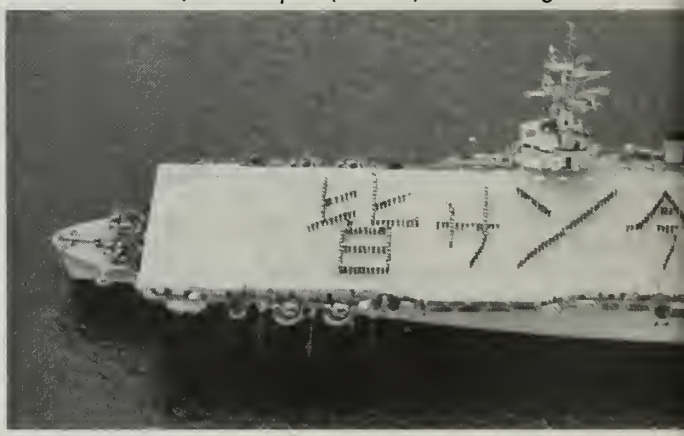
SIGNAL SEARCHLIGHT, flag hoist, and semaphore are the standard methods of visual communications in the Navy, but carrier men have an extra trick up their sleeve which they put into play for special occasions.

Taking advantage of the large area of their ship's flight deck and the large number of crew members for the operation of a flattop and her planes, they muster topside and line up in a military fashion to spell out their messages in person.

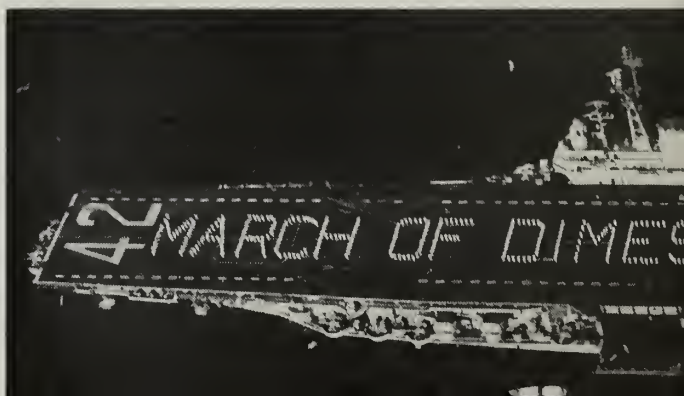
Messages vary with the occasion and the patterns resulting may be complex or simple but in either case they are always pleasing to the eye when seen or photographed from above. Occasions inspiring Navymen to communicate in this non-standard manner have been many. One of the most common occasions for this type

USS ESSEX (CVA 9) tries different method of greeting. *Below: USS BATAAN* (CVL 29) heads home for mothballs.

GOING NATIVE, *USS Saipan* (CVL 48) salutes Nagasaki.



HELPING HANDS of carrier join in the fight against polio.



Deadly Sting

informally as the Nan-ship) is some 340 feet long with a height of 100 feet. Lift is provided by approximately 975,000 cubic feet of helium, while two 800-horsepower engines mounted inside the cabin give it a speed of 65-75 knots. Actual propulsion is achieved by two propellers mounted on outriggers projecting from each side of the car. In an emergency, either engine can drive both propellers and both engines are accessible for maintenance and repair in flight, if necessary.

The control car, which is approximately 85 feet in length, is a double-decker with crew quarters and a galley (complete with a deepfreeze locker, automatic coffeemaker and electric roaster) above, and all the operational stations on the lower deck. Special equipment permits the ship to refuel in flight from a surface craft or to reballast from the ocean through a water pick-up system.

The car is attached by steel cables to catenaries which run along the top and sides of the envelope. The car is made of aluminum alloy sheet with a balsa wood core. The bag is made of rubberized fabric.

Although a blimp can take off almost straight up when light, it requires a takeoff run when heavily loaded. This was awkward with the old-style tail arrangements to be found in the K-type ships, so the control surfaces of the ZPGs have been moved to a 45° position. However, this presented the problem of snow and sleet collecting in the trough formed between the two upper ruddevators and the ship's body. In the newer model, the ZS2G-1, the controls are in the shape of an inverted Y.

The flight controls may be operated manually or automatically. A single pilot may control both vertical and horizontal direction alone or, in cooperation with his co-pilot, may divide the duties of maintaining altitude and direction. All controls can be operated through a single column, which is duplicated at the pilot and co-pilot stations. This, too, is a departure from the earlier ships, which required two pilots to operate the ship.

The airship envelope itself is limp. There is no structural metal in it except in the rudders and elevators. It is the helium in the envelope, which is maintained at two inches of water pressure differential from the atmosphere, that keeps the envelope filled out. However, around the nose of the bag, stiffeners are used. Here aluminum battens ,similar to those used in sails, are laced into the fabric so the bow will not be distorted if the blimp has occasion to head into a 70-knot wind.

ON PATROL NAVY AIRSHIPS protected Allied convoys during World War II, racking up a record for tracking and sinking subs in Atlantic and Pacific.

Just plain, ordinary air is used to give fore and aft trim. The trim tanks, known as ballonets, are located foreward and aft. The ballonet chambers are actually about one-fourth as large as the gas bag. Air is scooped or blown into them as needed and to provide trim, it can be valved either automatically or by manual control.

In the Nan-ship, there is a sight check procedure before landing which helps the pilot in determining whether the ship is nose or tail heavy. A crew member sticks his head up into a plastic glass astrodome in the top of the control car, but instead of seeing the sky he takes his check looking up into the cavernous interior of the gas bag, illuminated by a flood light controlled from the interior of the car. It's an eerie sight.

In spite of its two engines, the blimp has many attributes of the free balloon. Because most of its lift is provided by helium, not power, a blimp can be free-ballooned with the wind for hours if the engines should cut out. Because of the low pressure (a regulation football takes 180 times the pressure required to maintain envelope shape), gas leakage is slow. Tears in the bag have been repaired while in flight and even serious helium leakage usually means several hundred miles of travel before a landing *must* be made. If need be, they can land almost anywhere. There are no seat belts (except for the pilot and co-pilot) and no parachutes aboard.

A blimp is no toy for the weekend flying enthusiast, for the original cost is about that of a big bomber. However, because its power is used primarily for propulsion and not lift, gasoline consumption is quite low. The average operating cost of an airship is something like one fifth as much as that of a heavier-than-air patrol plane.

Although the military value of the balloon was established in our Civil War and the Franco-Prussian war and as early as the French Revolution, it was not until World War II that the blimp really came into its own.

On 7 Dec 1941, the Navy had only six sea-going, patrol-type airships and only one operational base, at Lakehurst, N. J. There were 5000 miles of continental sea frontiers on two oceans that had to be patrolled and not a single Fleet airship unit in existence.

Later that month, a ship was sunk by a Japanese submarine off the Cali-

DELIVERING a knock-out punch, Navy blimps used depth charges in anti-submarine action during World War II.

fornia coast and German submarines were active on the Atlantic approaches. Ships were being sunk faster than they could be replaced.

In 1942, the situation grew no better rapidly. In the Atlantic coastal areas, 454 merchant ships were sunk. Only 13 airships were available for patrol and escort service. Convoy and anti-submarine warfare tactics were only in the process of development. However, by 1943, sinkings had declined to 65 and, by 1944, had dropped to eight. None of these ships were sunk while under airship escort.

At the peak of operations, in 1944, Navy airships were patrolling about three million square miles off the Atlantic, Pacific and Mediterranean coasts. During the entire war, 89,000 surface vessels were escorted without a single loss to enemy submarines, although 50,000 of these vessels were operating in areas where U-boats were known to be present. Captured German logs showed that the U-boat skippers had a very healthy respect for their ungainly-looking adversaries. No one suggests, of course, that the airships whipped the submarine menace singlehandedly. It took the combined teamwork of airship, airplane and surface vessel.

To accomplish their part of the job, the World War II blimps made 55,900 operational flights with over 550,000 hours in the air. In doing so, they ran up a startling record of dependability—87 per cent were in operation or readiness at all times.

Despite their apparent vulnerability, only one airship—the K-74—was lost to enemy action. In July, 1943, in the Florida Straits, a U-boat surfaced and shot her down after the bomb-release mechanism in the airship failed to let the bombs go at point-blank range.

In addition to anti-submarine warfare, World War II blimps conducted search operations, observation, photography, mine operations, rescue and general utility.

So do present-day airships. As enemy submarines have improved, so have the blimps. Today, they have improved range and endurance, techniques for in-flight refueling, provisioning and transfer of personnel, better crew accommodations, improved electronic gear, improved navigational and communications equipment, an auto-pilot and many other new features.

In addition to the previously mentioned functions, two others should be mentioned. The lighter-than-air craft serves as an ideal platform for air and flight testing of aviation equipment, and has been doing so for years. Much of the equipment now found on board the Navy's hottest aircraft was first developed in the gondola of a blimp.

Technicians accustomed to working within the limitation of the more conventional type of aircraft are enthusiastic about the wide range of possibilities offered them by the sturdy and relatively roomy blimp.

It is this long-range stability that also makes lighter-than-air an important component of the aircraft early warning teams.

Lighter-than-air men claim that the blimp, with its ability to hover and carry more and larger types of detection equipment than the airplane, is superior to its teammates as a sub spotter and warning craft.

They may have a point. It was a Nan-ship that, in 1954, set a sustained flight without refueling record of more than 200 hours and in doing so, won for its skipper, CAPT Marion

LIGHTER-THAN-AIR Navymen secure K-type blimp to mobile mast and carefully 'jockey' her into hangar.

H. Eppes, the 1955 Harmon trophy. It would seem that the only reason why a blimp should now return to its base is for a major overhaul or the completion of its mission. Or, as they say about *Nautilus,* once every four or six years to enable the crew to reenlist.

Routine training or operational cruises for blimps now range from two to four days. The watch system for long hops is usually set up as four hours on and four hours off. LTA pilots say that the fastest way to muster all hands on deck is to shut off the engines. The startling silence brings everyone awake and down the ladders in an instant. Much more efficient than passing the word over the intercom.

The men who handle these ships are really little different from any other Navymen. To many, LTA is just another tour of duty. To others, it is a way of life, and they would like to make a career of it. Most like the duty, some do not. LCDR Baker, maintenance officer of ZP-3, for example, has been an LTA man during most of his entire naval career and hopes to stay with it until his retirement. His experience goes back to the days of the *Macon,* when he was one of the pilots who experimented with the hook-on of light planes. The senior CPO, Wiley, was one of the line-handling crew of the ill-fated *Hindenberg* when it made its fatal landing.

LTA pilots are really heavier-than-air men gone light-headed. They are all qualified heavier-than-air pilots who have received additional training and who, usually, alternate one two-year tour of duty in LTA with one similar tour in HTA. When they have an option, they usually request further LTA duty.

Although Lakehurst is still the major center for lighter-than-air activities, many of its pilot-training functions have been transferred to Glynco, Ga. Here, student pilots receive their preliminary LTA training, which includes the highspot of every LTA pilot's indoctrination—the free balloon flight, an experience which provides anecdotes for years to come.

However, here again, training in free balloons is more than merely keeping up with a pleasant tradition, for every pilot must understand and respect the power of the wind and must realize that a blimp without power is literally a free balloon and must be handled as such.

Aerodynamics, aerostatics and navigation are emphasized in the three-month special course. The major change in approach from HTA to LTA is in the manner in which air is considered. The airplane pilot is taught to consider it as a flowing medium; the lighter-than-air man considers it as resembling water in which a lighter body can float.

Until recently, LTA training of enlisted personnel was conducted by means of special courses at Lakehurst. At present, all training, other than rate training, is made available to selected personnel by means of operations with the Fleet. However, plans are now underway to provide further specialized training early this summer through the use of mobile trainers.

The following ratings are included in the flight crew for AEW airships: aviation electrician's mate (AE); aviation machinist's mate (AD); aviation structural mechanic (AM); air controlman (AC); and aviation electronics technician (AT). Additional ATs and sonarmen (SO) are included in the typical ASW air crew.

On the ground, the following ratings are employed: Aviation machinist's mate (AD); aviation structual mechanic (AM); aviation ordnanceman (AO); parachute rigger (PR); aviation electrician's mate (AE); photographer's mate (PH); aviation electronics technician (AT) and airman recruit (AR).

If you are in one of these ratings and LTA sounds like the duty you want, you might make application for a billet to Commander, Atlantic Fleet, via your chain of command. If you're qualified and there's a billet open, you'll find it to be interesting and unusual duty.

One further point which is indicative of the New Look in lighter-than-air—line handling crews are just about a thing of the past. They've been mechanized. Mechanical mules, in the form of tough tractors, equipped with winches, have taken their place.

NAVY LTA has come a long way since this dirigible (DN 1) pulled out of her floating hangar in 1917.

They're Ready for Full-Time Duty

"WEEKEND WARRIORS"—the men who make up the Naval Air Reserve—are an important segment of the naval air force and of the expanding Naval Reserve program.

Now in its fourth decade, the Naval Air Reserve program has come a long way since its inception.

The program was put to its first major test in World War II when thousands of "Weekend Warriors" became full-time Navymen, fighting on all fronts of the global war.

During the Korean conflict, the Naval Air Reserve really paid off. Some 42 Reserve Air squadrons were activated, including carrier squadrons, patrol squadrons and FASRons.

In March 1951 the first all-Reserve air group, operating from USS *Boxer* (CVA 21), hit the Korean front. Naval Air Reservists also played a major role in the activities of USS *Princeton* (CVA 37) and USS *Bon Homme Richard* (CVA 31). About half of the patrol squadrons fighting in Korea were activated Reserve patrol squadrons. Of 8000 combat sorties flown during a typical month's operation in Korea, approximately 75 per cent were by activated Naval Air Reservists.

When the Naval Air Reserve program got underway more than 30 years ago, there were 4000 Reserve officers and 20,000 enlisted men on inactive duty—all veterans of World War I. With a budget of little more than a half million dollars, the plan called for the establishment of seven units, capable of training about 500 pilots a year.

On 13 Aug 1923, the first Naval Reserve Aviation Base was established at Squantum, Mass. It boasted two seaplanes, one officer, one rigger, two machinist's mates and a carpenter on full time active duty. It had a small hangar, motor overhaul stand, a small machine shop and a motor boat. It could train a dozen or so pilots a year.

Today the Naval Air Reserve Training Command is made up of 21 Reserve Naval Air Stations and seven Naval Air Reserve Training Units which are located in important population centers of the country. More than 36,000 Reservists take part in the program, supported by active duty Reservists in the TAR program. (TAR stands for Training and Administration, Naval Reserve.)

An air wing staff and a number of squadrons and units are located at each of the 28 activities. There are also 84 Auxiliary Air Units (AAUs) and 33 Auxiliary Ground Units (AGUs) currently assigned. In addition there are 17 BARTUs—Bureau of Aeronautics Training Units.

Let's take a look at a typical air station in today's Naval Air Reserve. NAS South Weymouth, Mass., which replaced the pioneering activity at Squantum a year or so ago, may be considered an average-sized Reserve NAS. At the present time it has one air wing staff, five fighter squadrons, four anti-submarine, two patrol, four transport, one lighter-than-air, two helicopter squadrons and one CV FASRon taking part in its 48-drill program. Its 24-drill program includes four AAUs and two AGUs. There is also one BARTU, in the 12-drill program.

According to recent statistics, NAS South Weymouth has about 47 officers and more than 443 enlisted men on board as stationkeepers. That's quite a change from the one officer and four EM of the 1923 era.

Planes and equipment have taken on a "new look," too, as the Reservists follow the trend toward powerful jet-propelled aircraft.

Today's Air Reservists get up-to-date training with the latest available equipment. Jet-powered aircraft are replacing the outmoded prop-driven planes in ever-increasing numbers.

Reserve fighter pilots fly F9F-6 and F9F-7 *Cougars* and F2H *Banshees*. They are replacing F4U *Corsairs*.

Attack squadrons use modern AD

IMPORTANCE OF NAVAL AIR RESERVE was exemplified in Korean conflict where they served on all carriers. Here, pilots and crews rush to ready planes.

KEEPING UP WITH THE TIMES, Reservists are now piloting jet fighters like these F9F-6 Cougars.

Skyraiders and jets. Members of anti-submarine squadrons will find the TBMs and AFs being replaced by the S2F, beginning early in fiscal year 1957. Patrol squadron pilots are flying P2Vs and the P4Y *Privateer*. P2V *Neptunes* have replaced almost all of the older PV *Harpoons*. Transport squadrons are using late model R4D-8 twin-engined and R5D four-engined planes.

The training program is geared to handle this transition from conventional aircraft to jets. The Chief of Naval Air Reserve Training is authorized to permit additional 14-day periods of active duty for training to enable each pilot to receive more training for the switch-over from props to jets.

Enlisted Air Reservists are also kept abreast of the latest developments in the field of aviation. Back in 1950, the Naval Air Reserve Training Command began a system of accelerated training for airmen. The program encompasses two levels of training—one for advancement to airman apprentice and airman, the other to petty officer third class.

Reservists who attend the 85-day Recruit Airman School are given a standardized AA exam during the course and the AN exam at the end of the training period. Upon "graduation," those who qualify are advanced to AA and, after six months in pay grade E-2—if they fulfill all drill requirements – they are advanced to pay grade E-3.

Students at the Basic Rate School are given a locally prepared exam at the conclusion of their course. If qualified, they are advanced to PO3 after completing six months in pay grade E-3 and fulfilling the necessary drill requirements.

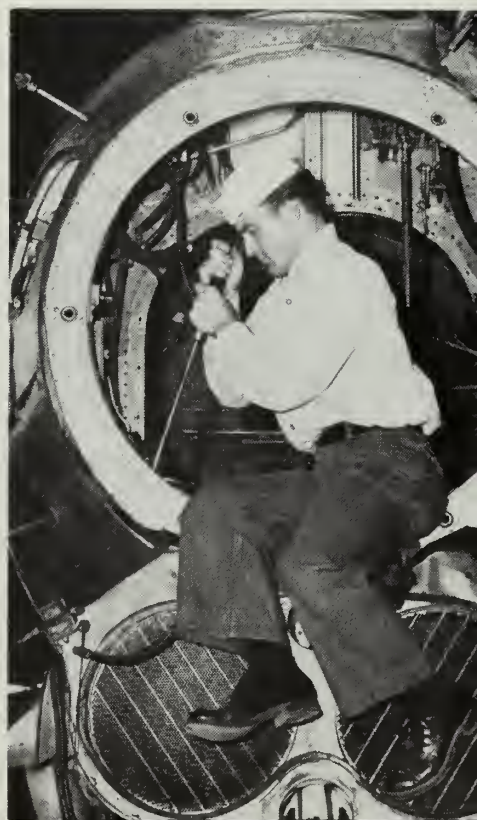
It's easy to see that training "Weekend Warriors" is no hit-or-miss affair.

AVIATION ORDNANCE CHIEFS receive training in latest weapons. *Below:* White hat of reserve FASRon unit makes repairs on jet at NAS Norfolk, Va.

The Naval Air Reserve program is divided into three groups in terms of the number of drills authorized annually in a pay status—48-, 24- and 12-drill units. All are under the cognizance of CNARESTRA, the Chief of Naval Air Reserve Training.

• *48-Drill Program*—This program is composed of squadrons and air wing staffs performing 48 drills a year in a pay status. The drills are scheduled in groups of four and are held one weekend each month. "Weekend Warriors" spend 14 days on active duty for training (ACDUTRA) each year at Fleet activities or at other air stations of the NARTC. During this time the squadrons conduct flight operations as self-supporting units.

The number and type of squadrons and units authorized depend primarily on the number of qualified naval officers and men available for training in a given area as well as facilities for air training. The types of squadrons assigned also depend



NAVAL RESERVE air crewman works on communications equipment while on training assignment with his unit.

DURING TRAINING CRUISE on board *USS Intrepid* D. Nicke, ADC, USNR, makes repairs on jet turbine. *Below:* Weekend Warrior crew prepares for flight.

upon the operational experience of the available aviators and upon mobilization requirements.

The 48-drill program now includes 94 VF (Fighter) squadrons, 43 VA (Attack), 34 VS (Anti-Submarine), 27 VP (Patrol), 2 VP(P) (Patrol Photo), 38 VR (Transport), 54 FASRons (CV and multi-engine support), 8 ZP (Lighter-than-air) and 11 HU (Helicopter) squadrons, thus providing a type squadron to meet the operational qualifications of every naval aviator.

At the present time, more than 7600 officers are assigned to air wing staffs and squadrons, including about 5200 naval aviators and more than 2400 ground and staff officers. Some 26,000 enlisted men are assigned to the program. As is the case with all Naval Air Reserve programs, authorized allowances and planning for future growth provide for substantial increases in these figures.

• *24-Drill Program* — Air Reservists in this program make up Auxiliary Air Units and Auxiliary Ground Units. They attend 24 drills annually in a pay status and spend 14 days on active duty for training with pay. A maximum of 48 drills may be prescribed by the Chief of Naval Air Reserve Training, with any drills in excess of 24 to be without pay. AAUs may be located at the parent NAS or NARTU or at an auxiliary air field.

The pilots of AAUs are naval aviators who are prevented by civilian occupation (or distance) from attending 48 drills yearly or who do not meet the operational flight qualification requirements for affiliation with the 48-drill program. They drill as a group and, upon mobilization, would serve as flight instructors, ferry pilots, or in other support activities.

The Auxiliary Ground Units are composed of aviation ground officers and men who possess ground specialty qualifications. They perform monthly drills at Naval Air Stations, Surface Reserve Training Centers, Air Force facilities and other military or nonmilitary establishments. The 14-day active duty for training period is spent working in their specialty or attending advanced schools. When mobilized, they will be assigned as individuals in special fields.

Included in the 33 currently assigned AGUs are 17 Air Intelligence Specialist (AI) units, one Photo Interpretation Specialist (PI), one Photographic Specialist (PHOTO) and one Combat Information Center (CIC) unit.

More than 1100 naval aviators are assigned to AAUs and AGUs, along with about 500 ground and staff officers and 800 enlisted men.

• *12-Drill Program*—This program is composed of Bureau of Aeronautics Reserve Training Units (BARTUs). Members include officers and enlisted personnel who have qualifications for specific mobilization billets in BuAer or its field activities.

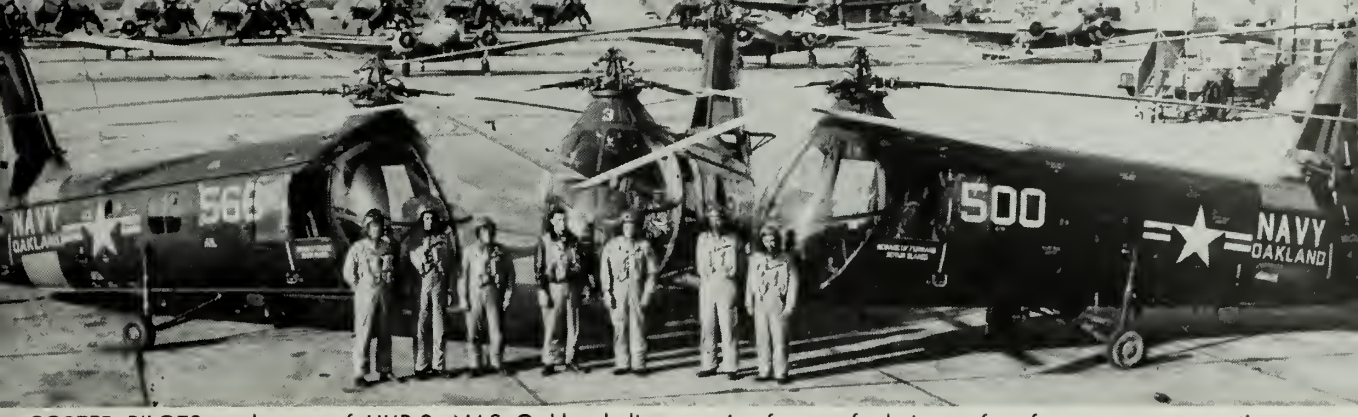
Officer code designators in 13XX and 15XX groups are authorized. Not more than 20 per cent of any BARTU officer allowance may be filled by naval aviators.

Although a maximum of 12 paid drills annually is prescribed, units should schedule at least 24 drills a year. Members are authorized to take active duty for training each year, with pay and allowances. When possible, they perform ACDUTRA in their mobilization billets.

There are now 17 BARTUs meeting regularly throughout the country, with about 200 officers and a number of enlisted men participating.

The value of this complex training program was more than evident in World War II and the Korean conflict.

Today, from recruit to flag officer, on the ground and in the air, the Naval Air Reserve is continuing to prove itself a competent, progressive component of the Navy—ready for any emergency that might come.



COPTER PILOTS and crew of HUP-2, NAS Oakland, line up in front of their craft after rescue operations.

Air, Sea, Land Teamwork Saves Flood Victims

THE RAIN WAS HEAVY and the day was very dark as Navy helicopters hovered over raging brown waters hoisting cold, wet people to safety as floods swept over Northern California in what has been described as one of the worst disasters in the state's history.

More than 200 lives were saved by Navy helicopters alone. Men, women and children of all ages were hoisted 50 to 60 feet into the air and into the safety of the helicopters. Flight after flight was made carrying from one to four flood victims each trip.

Navy helicopters flying from naval air stations at Oakland, Alameda, Moffett Field and Monterey are credited with saving 43 lives in the Guerneville area, rescuing 143 in and around Yuba City and hoisting 27 to safety from the Eureka-Arcata flooded area. Helicopters from the Coast Guard and from commercial firms in the area also played a prominent part in the rescue operations.

In addition to their rescue work the Navy helicopters transported doctors, nurses and medical supplies throughout the stricken area. They rushed emergency cases to hospitals, even landing on the hospital lawns, where necessary, to deliver their cargo. The whirlybirds also carried insulin to diabetics isolated by the flood waters and badly in need of the extract. They carried food, milk, fresh water and blankets to people in areas cut off by the raging waters.

The helicopters even acted as "storks" during the disaster. In one instance a Navy helicopter spotted a white cross made out of sheets in a front yard near Salmon Creek. After landing in the front yard the pilot discovered it was a signal for help from a woman momentarily expecting a baby. She was immediately loaded into the helicopter. The pilot took off for the Garberville Airport, but found that the landing strip there had been isolated from the town. The only spot available turned out to be a drive-in theater where he landed as gently as possible and hailed a passing motorist who took the woman to the hospital—just in time.

Although the helicopters performed various tasks during their rescue operations, everywhere they went the scene was the same. Railroads, bridges, highways, homes, automobiles and livestock had been washed away. People were perched on rooftops, makeshift rafts, sawmills, in trees and on every spot that wasn't covered by water. And rescue operations were hindered by telephone wires, trees, antennas and the extremely bad weather.

Besides the helicopters, hundreds of Navymen, with planes, trucks, busses, small boats, blankets, cots and communication facilities turned to in the battle tagainst the floods.

At Palo Alto, a Moffett Field Navy weasel (amphibious vehicle) carried to safety 12 people who had been marooned by the high water. Moffett Field also provided emergency housing to flood victims.

A Navy P2V *Neptune* from NAS Oakland flew 4100 pounds of blankets to Arcata, and four of the Navy's SNB Beechcraft airplanes were sent to Arcata to aid the post office in getting mail to isolated areas.

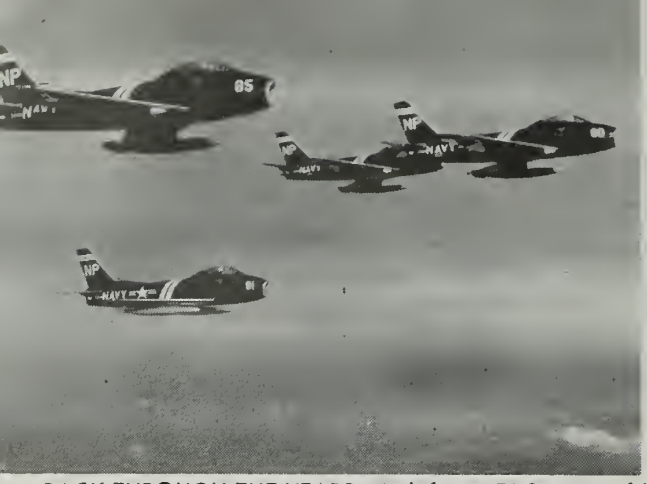
Fifteen rubber lifeboats and 200 cots were rushed from the Naval Supply Center in Oakland to the Stockton area and portable pumps were furnished by naval activities throughout the flooded sections to pump water from cellars.

Navymen in every part of the disaster area joined civilians and Army personnel to fill and place hundreds of sand bags to hold back the swollen rivers.

From the Naval Magazine at Port Chicago dump trucks, a mobile crane and a rock loader were rushed to the Martinez district to aid civilian defense workers there.

Navy radios immediately turned to, aiding in communications, and Naval Reservists in the area turned out to keep the messages moving. It was an all-out effort by the Navy in a battle against nature's violence.

TYPICAL OF FLOOD areas where Navymen rushed to give assistance is this photo of Yuba City—Marysville area.



BACK THROUGH THE YEARS—At left are FJ-3 *Furys* of Korean war. Right: WW II SBD *Dauntless* dive bombers return.

Record of Conquest: Navy

IMAGINE A PILOT and passenger sitting on the lower wing of a 1913 "hydro-aeroplane" flying over the ocean. The plane, like most planes of the day, has no cockpits, no seats, no safety belts, and only a few inches of fabric-coated frame separates them from the water below.

Suddenly the plane noses down; one of the men immediately drops from view, while the other—a real "cool cucumber"—grabs the strut he is sitting beside and hangs on while the plane completes a wild, spinning 1600-foot plunge into the water. Pulled out of the drink by a nearby ship and rushed to a hospital, he not only recovers—he returns to flying duty.

That incident actually occurred on 20 Jun 1913, and the cool daring, the hang-on-and fight attitude of LT John H. Towers (the man who rode the plane down), has characterized the entire history of the Navy's flying service, from the day in 1898 when Assistant Secretary of the Navy Theodore Roosevelt recommended that the government look into the possibilities of aircraft, until today when you can see the world's largest carrier cruising off the Virginia capes, watch one of the world's largest flying boats—a Navy *Mars*—shuttling between Hawaii and California, or read about any one of the dozens of pioneering steps in aviation initiated by the Navy.

The history of your Navy's aviation branch actually goes back about a dozen years before the Navy even owned a plane, back to Teddy Roosevelt's advice in 1898. On his recommendation a board was appointed to look into the possibilities of combining air and sea operations, but their favorable report did not meet with universal approval. After all, it would be several years yet before the Wright brothers flew their first plane, so no wonder an aviation program seemed a little premature.

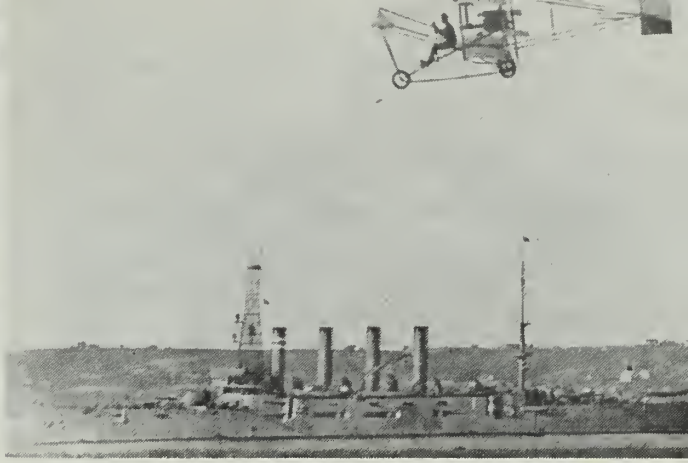
Other early attempts to interest the Navy in aircraft met with the same stumbling block. By 1908, however, numerous followers of the Wrights had built and flown their own craft and the Navy had several men who were well-informed about aviation.

A naval observer at an international aviation meet in 1909 noted in his report of the event great military possibilities for the aeroplane and proposed modification of a *Connecticut*-class BB into a "carrier." In 1910 pioneer airman Glenn Curtiss declared that "the battles of the future will be fought in the air! The aeroplane will decide the destiny of nations!"

After watching a bombing attack put on by Curtiss, another naval observer noted that for military purposes planes still had plenty of defects, including dependence upon almost perfect weather, the impossibility of approaching an enemy without his being forewarned by the noise of a plane in flight, to say nothing of the difficulties of controlling altitude and speed so as to predict range, or working at a height great enough to give the plane a fighting chance of reaching an effective range.

Even so, Captain W. I. Chambers

AIR PIONEERS—Sleek *Skyhawk* and gear of record-breaking pilot LT Gordon Gray, USN, contrasts with LT P. N. L. Bellinger, USN, in AH3 Curtis plane, 1915.



BIPLANES OF WW I make training flight. *Right:* One of Navy's new planes in 1912 flies over *USS West Virginia.*

Pioneers in the Air Ocean

was assigned in late 1910 to "keep informed" on aviation progress and was authorized to offer recommendations to the Navy Department. In short order he proposed buying a number of planes for experimental purposes and the creation of a separate office of aeronautics. Despite opposition encountered on many sides, Chambers finagled use of the cruiser *Birmingham* and the services of Eugene Ely—number one pilot for Glenn Curtiss—and proceeded to pull off the first ship-to-shore flight. That was on 14 Nov 1910.

A few days later, Curtiss offered to train a naval pilot in his plane—for free. The offer was accepted and the Navy had its first official student pilot, LT Theodore G. Ellyson.

On 18 Jan 1911, shortly after Ellyson had joined up with the Curtiss-Ely team, Ely made the first "arrested landing" on the armored cruiser *Pennsylvania,* then turned right around and flew back to the beach. These experiments and others were sufficiently convincing for Congress, on 4 Mar 1911, to appropriate $25,000 for the Navy's first planes.

Then naval aviation began to move a little faster:

- Two land planes and an amphibian were ordered in 1911, and pilots and mechanics were ordered to train for their operation. Among these men were such pioneers as LT John Rodgers and the aforementioned LT John H. Towers.
- The first naval airfield was built near Naval Academy at Annapolis.
- Experiments to find some workable catapult device were begun, with an eye to making the Navy's air force an integral part of the sea service.

Work—and results—with this midget air force gave Chambers and the Navy enough talking points to get the Navy's second appropriation for aviation upped to $65,000. Pioneers in any field must take chances with the unknown, the untried; and the Navy's fledglings were no exception. They attempted various means of catapulting planes, submarine and mine spotting, and conducted tests (mostly simulated) with the Fleet in screening, bombing and aerial photography.

Despite the bigger appropriation and demonstrated successes, however, the naval air force moved slowly, working against a lack of enthusiasm in some cases and hostile opposition in others. A 1913 report to the General Board listed for the Navy's air force the small total of eight planes in commission, 13 officer pilots, one air station and one reserve field.

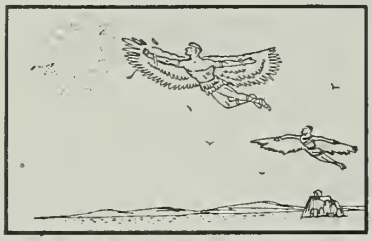
The same 1913 report which listed the Navy air force's strength contained enough favorable information, however, to make the Board overlook a lot of opposition. After studying that report, the Board decided (14 years after Roosevelt's initial recommendation) to "get hot" on naval air. "Getting hot" was for the time being mostly a paper matter, unfortunately, since Captain Chambers still had no power except to make recommendations, and no steps were taken to set up any sort of aeronautics department. Even so, the General Board's

(Continued on page 40)

OUT IN THE OPEN—Pilot of early plane (left) and test pilot flying new experimental rocket-powered one-man copter both experience plenty of fresh air.

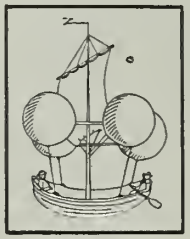
HIGHLIGHTS AND HIS

EARLY TRIES IN HISTORY



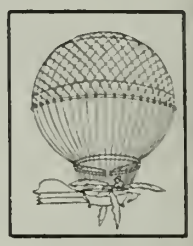
POWER TO FLY has been man's earliest dream. Mythalogy and religious beliefs reflected this age-old desire. Icarus and Daedalus go aloft

DaVINCI in 1508 derived this inspiration from nature—careful study of birds in flight

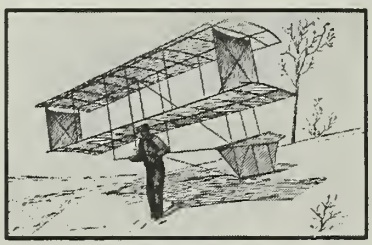


IN 1670, de Lana's air boat without propellers had merit, did not work.

HOT-AIR, paper-and-linen balloon of Montgolfier flew in 1783



BLANCHARD in hydrogen bag made first air voyage in America 1793.



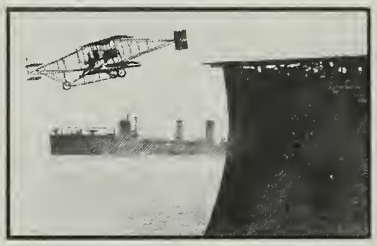
CHANUTE BIPLANE GLIDER.—Built by Octave Chanute, a civil engineer from Chicago, in 1897, this glider secured vital improvement—stability.

SANTOS-DUMONT'S early experiments aided the development of the non-rigid airship. In 1898 he was first to apply the gasoline engine for aerial use.

RIGID AIRSHIP design was introduced by Count Zeppelin. His ship in 1900 had two 16-hp engines and succeeded in reaching a speed of 20 mph.

NAVY'S FIRST DECADE AND WORLD WAR ONE

CAPT W. I. CHAMBERS lead Navy in first aeronautical experiments.



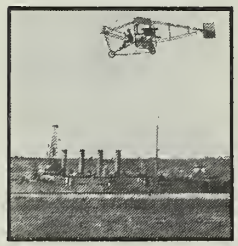
FIRST FLIGHT from the deck of a ship. Pioneer pilot Eugene Ely sets pattern for aircraft carrier take-off from *USS Birmingham*, 14 Nov 1910

EUGENE ELY, test pilot, provided information on shipboard operations.

LT THEODORE G. ELLYSON, Naval Aviator No. 1, set to fly "crate."

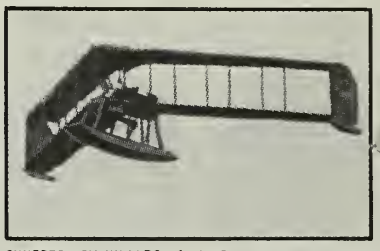
NAVAL AVIATOR NO 2 was CDR. J. Rodgers shown in 1926 gear.

LT ERS a

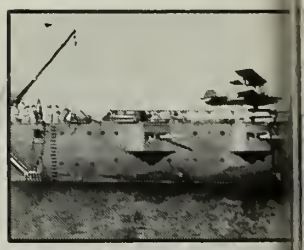


PLANES like this 1912 craft were among the first steps in building the sea-air Navy.

EFFICIENT CATAPULTS were based on experiments at Annapolis in 1912. Operation involved use of a cradle which was also launched, but free of plane.



SWEPTBACK WINGS of old Burgess-Dunne AH-7 hydro-aeroplane of 1913 find modern manifestation in the F7U and other streamlined jets of today.



FIRST CATAPULT on a warship. Al by LCDR Mustin, is shown leaving th of *USS North Carolina* during trial

NAVY'S FIRST DIRIGIBLE approaching its floating hangar. The DN-1 marked the introduction of lighter-than-air craft into the naval air force.

PARACHUTE PRACTICE from observation balloon introduced as part of airmen's training

NAVY'S WW I "ACE" was LT D. S. Ingalls, assigned to RAF, 1918.

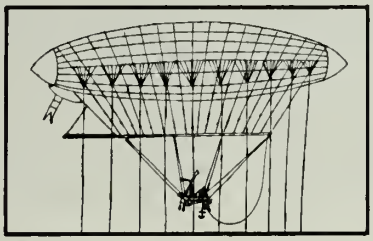
OBSERVATION KITE balloons invaluable aids to Navy's mission — protection of convoys.

F5L PATROL plane wa decade. In production d of these flying boats of

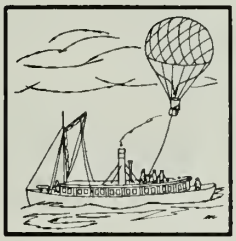
Prepared by ALL HANDS Magazine

—THE FLYING NAVY

erial Steam Car- ever constructed, eotures in design.



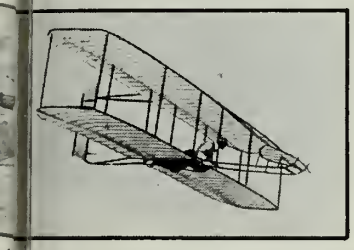
COAL GAS lifted Giffard's airship, France, 1852. Powered by steam engine and screw propeller, this first semi-rigid balloon proved to be navigable.



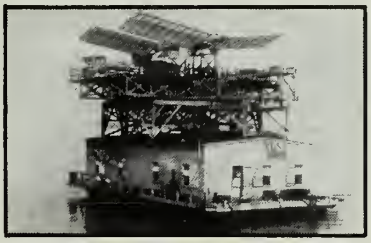
1861 NAVY EXPERIMENT—carrying balloons for observation purposes was transport *Fanny*.

FIRST CARRIER was USS *George Washington Parke Custis*, 1861.

LILIENTHAL, 1895. German pioneer of gliding flight, was early, significant contributor.



HT GLIDER of 1902. Gliding experiments to design and evolve a system of control ould enable stability to be maintained.

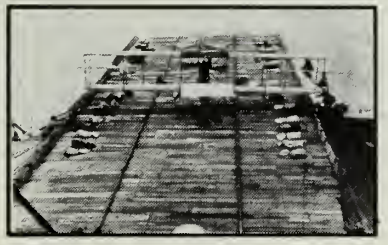


LANGLEY'S *AERODROME* failed in October and December tests of 1903. Believed to be aerodynamically sound, its launching device proved faulty.

FIRST FLIGHT ever made by man in a power-driven, heavier-than-air flying machine made by Wright brothers at Kitty Hawk, N. C., on 17 Dec 1903.

TOW- fly in plane

BASIC IDEA of this first landing on a ship is still used. Platform and canvas barrier on USS *Pennsylvania* are shown. Date: 18 Jan 1911.



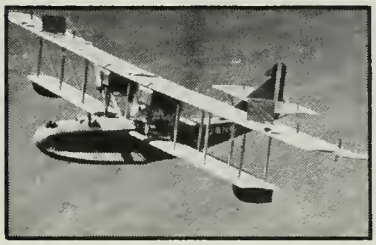
FIRST "ARRESTING GEAR" on the cruiser *Pennsylvania* is tried out by Ely. Careful arrangement of 22 lines across the deck, with sandbags, worked.

NAVY'S FIRST PLANE, the amphibious A-1, is seen as it is successfully launched from a wire by Ellyson at Hammondsport, N. Y., September 1911.

LT P. N. L. BELLINGER was another Navy "early bird." Later, at Vera Cruz in 1914, he became first naval aviator to receive bullet holes in his plane.

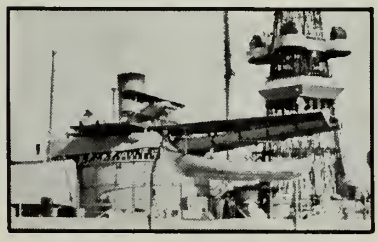
COMMUNICATIONS in 1917 were aided greatly by feathered heroes, the carrier pigeon.

FIRST NAVAL aerial photographer was W. L. Richardson (left), seen at Pensacola, 1914.



H-16 NAVY BOMBER, used overseas in World War I in North Sea area, still retained box-like design of early planes but forecast shapes to come.

Navy for a War I, a few each Europe



PLATFORM ON GUN TURRET could be rotated to insure a favorable wind for successful launching. Plane in ready position on USS *Oklahoma*.

TRIPLANE was one of the experimental aircraft developed as a result of the Navy's interest in scientific achievement and planning for future.

FIRST TRANSATLANTIC FLIGHT in 1919 was made by one of three NCs that tried—the NC-4. Route was to Plymouth, England, via Azores and Lisbon.

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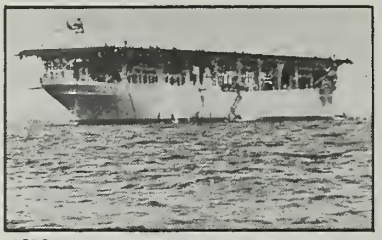
THE TWENTIES PERIOD OF IMPROVEMENT

RADM WILLIAM A. MOFFETT, first Chief of Bureau of Aeronautics, organized in 1921.

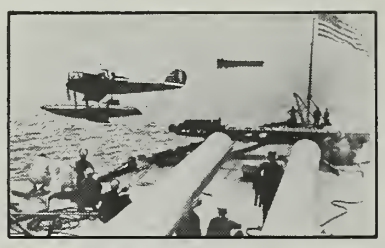


AEROMARINE APPROACHING *USS Langley* during landing practice, 1922. LCDR G. deC. Chevalier, who made first landing on it, used same type plane.

FLIGHT DECK scene of Navy's first carrier, *USS Langley*, shows similarity to present technique.

FIRST SEAPLANE TENDER, *USS Wright* (AV-1), was a logical step in developing new uses of seaplanes learned as result of World War I operations.

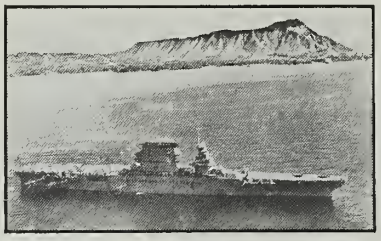
SC-1 MARTIN BOMBER and torpedo plane of 1925. Torpedo technique had improved, as planes became heavier, faster, more dependable.



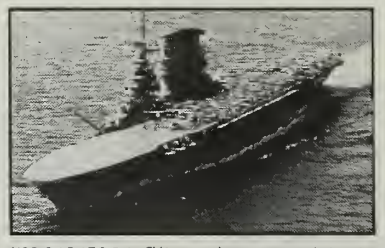
VE-7 SEAPLANE leaving turntable catapult on *USS Maryland*. This plane also made the first flight deck take-off under its own power from a carrier.

HIGHLY VERSATILE aircraft of the 1920's was the early *Corsair*. They were used for observation, as two-seat fighters, and as dive bombers.

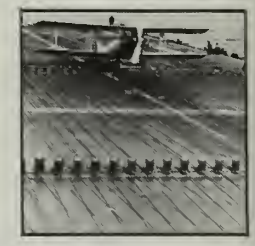
FIRST FLIGHT over North Pole made by CDR Richard E. Byrd and Floyd Bennett, May 1926.



FLATTOP CONVERSIONS of cruiser, battle-cruiser hulls yielded valuable information in planning future carriers. Here is *USS Lexington* CV2.



USS SARATOGA CV3, another converted battle-cruiser hull. Her performance greatly contributed to the development of future fighting carriers.



FIRST LANDING on *USS Saratoga* by LCDR Marc Mitscher in 1928. Arresting gear improving.

THE THIRTIES PERIOD OF DEVELOPMENT

K-CLASS BLIMP, built as a training ship in thirties, was prototype of WW II airships.

OP-1 AUTOGIRO of 1931 was the Navy's first rotary winged aircraft. It saw test service in valuable experience with Marines in Nicaragua, 1932.

XT5M-1 MARTIN DIVE BOMBER of 1930. The production models were designated BM-1 and were the first dive bombers to carry 1,000-pound bombs.

USS MACON, one of Navy's largest dirigibles, served as flying hangar for F9C-2 fighter.

FIRST NON-STOP MASS FLIGHT between San Francisco and Pearl Harbor was made in 1934 by a group of P2Y-3s. Later served as trainers.

LAST BIPLANE FIGHTER and the forerunner of the Grumman *Wildcat* was single-seater F3F. This model and modifications were standard fighters.

PBY-5A *CATALINA*—This patrol bomber became the basic patrol plane of WW II. PBY's stacked up remarkable records since purchase in 1935.

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NE OF NAVY'S ENTRIES in the Curtiss trophy ce in Detroit, Mich., October 1922 was this rtiss 18–T. This triplane had 400-hp engine.

NEARLY AS FAST as airplanes in that era and with many times their range and endurance, rigid airships promised bright future in aviation development. Attention was brought to bear on aviation and its potential power. Above is the ill-fated *Shenandoah*.

DT–2, TORPEDO PLANE, 1923. Torpedo bombing, recognized early as a tactic, has paid off.

ALIFORNIA TO HAWAII was goal of CDR John odgers in flight of two PN9s. Even though forced own at sea, he established new distance record.

NAVY AMPHIBIAN. OL–2, one of the three planes used to conduct aerial exploration with CDR Donald B. MacMillan's Arctic Expedition, 1925.

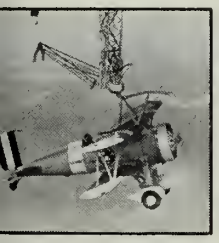
MARTIN BOMBER, 1926—The T3M, a modification of the plane shown, was the first torpedo plane widely used aboard carriers, and one of the largest.

G–1 *GREAT LAKES* was rugged two-seat biplane torpedo omber with fixed landing gear.

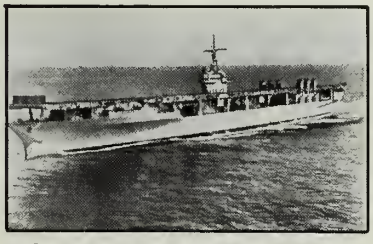
F4B–1 BOEING FIGHTER, developed in the late 1920s, was popular airplane with Navy pilots during the 1930s and was standard for the period.

FLOTATION BAGS are inflated in this 1928 experiment. New ideas and courage were still needed to increase safety and efficiency of naval air force.

FIRST OVER SOUTH POLE was flight by RADM Richard E. Byrd as climax of 1929 expedition.



OOKING ON and taking off uring flight from mother air-ip, Macon, trick of F9C–2's.

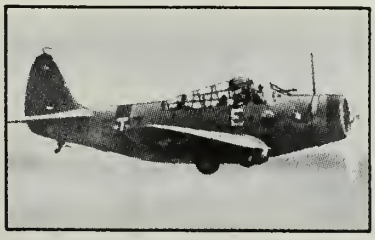


FIRST AIRCRAFT CARRIER built as such from the keel up. All others before 14,000-ton USS *Ranger* were skillful conversions. June 1934.

SOC–1 *SEAGULL* served on old battleships and cruisers as scout and observation planes, operated from catapults. Fitted with wheels in port.

N3N *YELLOW PERILS* were primary and advanced trainers. Pontoons made them seaplanes.

BD *DAUNTLESS*—First produced in 1937, it was st monoplane dive bomber. Later it delivered a nashing attack on the enemy at Battle of Midway.



TBD–1 *DEVASTATOR* of 1937 was heaviest carrier-based naval aircraft and only torpedo bomber in operation in the late 1930's and early WW II.

F2A–2 *BUFFALO* was the first monoplane fighter to go into service use. Ordered in 1938–1941, it was flown by Marines in opening phases of WW II.

continued on next page

WORLD WAR TWO

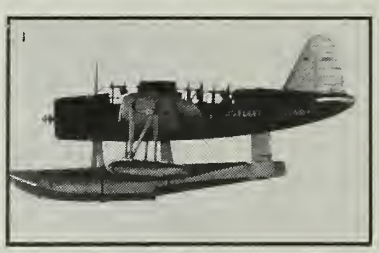
USS YORKTOWN (CV 10), incorporating many improvements, was commissioned in 1943, as namesake of CV 5, which was sunk at Midway, June 1942.

USS ENTERPRISE, sister ship of the *Yorktown*, gave good account of herself in early days and all through WW II. She received the PUC and NUC.

REFUELING AT SEA. Top seamanship met dare of this vital operation. *Essex* class carrier.

LSOs were used on the old *Langley* in 1922. But many new jobs come with developments.

F4F–3 *WILDCATS* were first Grumman monoplane fighters. Original design was for biplane



OS2U *KINGFISHER* was developed in 1937, went into production in 1941. Performed as patrol and rescue operational plane during early years of war.

TBD–1 *DEVASTATORS* were first produced in 1936, but served as the Navy's standard torpedo bomber well into 1942. Participated in Battle of Midway.

SBD *DAUNTLESS*, famed scout bomber, fulfilled its mission in dive bombing, search and patrol.

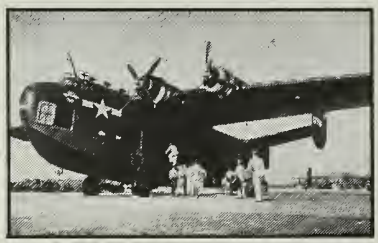
SEAPLANE TENDERS in World War II provided great mobility for patrol, air-sea rescue and other seaplane operations, serving as floating bases.

F6F *HELLCAT* distinguished itself as a day fighter and later as a night fighter in Pacific.

PBM *MARINERS* flew patrol, ASW missions, used JATO technique (jet-assisted takeoff).

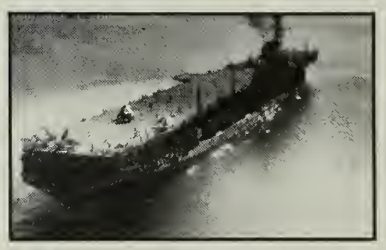
WARTIME AIR TRANSPORT requirements were met by turning to production of modified commercial heavy-load carriers such as four-engine R5D.

POSTWAR YEARS AND NEW DEVELOPMENTS 1945-1950



PB2Y–3 *CORONADO*, used on patrol and bombing missions during war, were also part of fleet of NATS serving as transports during war and demobilization.

R4D *SKYTRAIN*, widely used by Naval Air Transport Service, carries cargo up to seven tons.



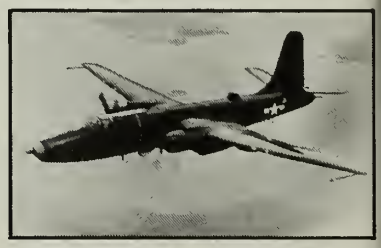
MIDWAY CLASS, commissioned in 1945–47, profited in design from war years. This class includes *USS Midway*, *Franklin D. Roosevelt* and *Coral Sea*.

F8F *BEARCAT* set a new record for rate-of-climb in 1946, 10,000 feet in one min. 34 sec.

FD–1 *PHANTOM*, first jet fighter (along with FR–1) for carrier use, flew over 500 mph.

NAVY'S *SKYSTREAK*, high-speed research plane, proved itself with two world's records.

F6U *PIRATE*, small lightweight-design jet fighter, is made of special material, consisting of a sandwich of thin aluminum sheets bonded to balsa wood core.



P4M–1 *MERCATOR* was designed for long over-water patrols, even though a land-based plane. Is powered by two jet and two reciprocating engines.

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USS WASP, one of nine pre-war carriers (ordered 1935, commissioned 1940), delivered planes to Malta in Mediterranean, last at Guadalcanal, 1942.

USS HORNET, keel laid in 1939, won fame. Launched bombers in attack on Tokyo.

ESCORT CARRIERS, designed to meet needs of war, became integral part of post-war Navy.

INDEPENDENCE CLASS carriers were light cruisers converted in 1940–42. Teamed with *Essex* class, they delivered smashing attacks in World War II.

IMPORTANT DEVELOPMENT in 1940 was the XF4U–1 *Corsair* which was first Navy plane to tap 400 mph. This fighter has lasted longer than any.

THE SB2C *HELLDIVER* entered war late in 1943 in attack on Rabaul shipping and defense.

JRM *MARS*, the giant cargo flying boat of the Naval Air Transport Service, shattered four world records on its first war mission in 1943. This 70-ton "flying Liberty ship" flew a 35,000-pound cargo of war materials 8792 miles with average speed of 161 mph.

PBY *CATALINA*, famed workhorse of the World War II Navy, proved its versatility through bombing, air-sea rescue, transport and patrol missions.

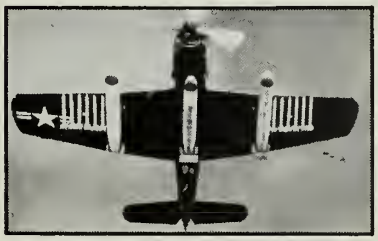
AVENGER tests JATO takeoff. Designated TBF or TBM, it was important carrier plane.

BLIMPS and other lighter-than-air craft, inflated with nonflammable helium, were invaluable.

PB4Y–2 *PRIVATEER* entered combat in 1945 designed especially for long-range patrol in Pacific. It operated effectively against shipping and subs.

MOTHBALLING aircraft carriers, as well as aircraft, a post-war chore that proved practical.

P2V *NEPTUNE*, an antisubmarine plane, set world's record for long-distance flight. In 1946, one nicknamed the "Truculent Turtle" flew 11,236.6 miles.



AM–1 *MAULER*, attack plane, designed to carry 4,000-pound bomb load and take off on a 400-foot run. Actually carried heavier loads plus rockets.

FR–1 *FIREBALL* one of Navy's first major jet experiments. Prop-driven, jet unit in tail.

F7U *CUTLASS*, a radical twin jet with delta-form wing and vertical fins, 650 mph or better.

F3D–1 *SKYKNIGHT* was the first jet fighter designed for all-weather operation. Long range and high speed give it outstanding versatility.

F2H *BANSHEE*, a twin jet carrier-based fighter plane, was replacement for *Phantom*. They are armed with four 20mm nose guns. Top 50,000 feet.

XP5Y–1, FIRST TURBOPROP seaplane in U. S. powered by these Navy-pioneered engines.

continued on next page

KOREAN OPERATIONS

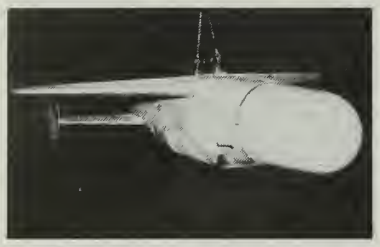
F7F-2 *TIGERCAT*—Gross weight 13,000 lb. Used in Korea, has speed over 425 mph, 1500-mile range.

THE F9F SERIES of jet aircraft include three "cats," the *Panther* above, and *Cougar* and *Tiger*.

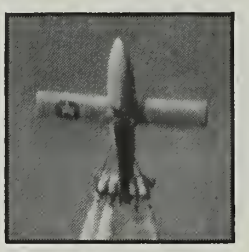
OE-1 *BIRD DOG*, Marine observation plane at Korean front.

F4U *CORSAIR*-Used in low-level ground support, night flying.

GUIDED MISSILES



BAT—Radar-guided bombs hit Japanese shipping targets miles away. Carried by Navy *Privateers*.

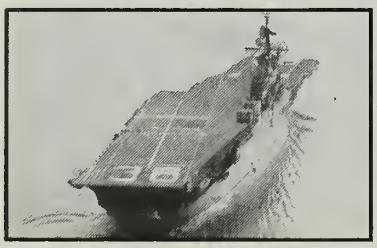


LOON—Navy guided missile launched from ships and subs.

RADIO-CONTROLLED target drones simulate moving planes.

REGULUS, launched from *Princeton*, carries its own landing gear. Uses JATO for quick pick-up.

PRESENT

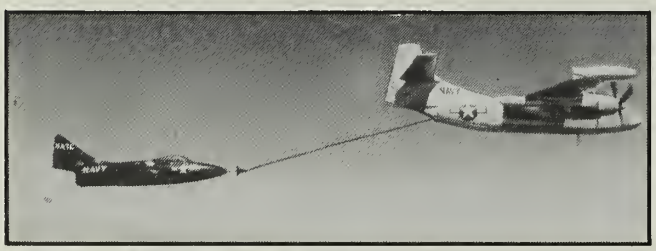


USS *ANTIETAM* (CVS 36) with angled deck permits greater safety in carrier flight deck operations.

F9F-6 *COUGAR*—Swept-wing successor to *Panther* jet is a day fighter, in the 'over-600-mph' class.

P5M-2 *MARLIN*—New 'T' tail gives better slow speed control.

AF-2S *GUARDIAN* — Antisub plane, long range, good speed.



REFUELING IN FLIGHT becomes routine after successful tests. Here is a F9F *Panther* taking on jet fuel from an XAJ-1 tanker plane. Technique will increase fighter range.

XF3H-1 *DEMON*—Single jet swept-wing, all weather fighter, radar and fire-control equipment.

XFV-1 takes off, lands vertically, flies on level.

JET-ASSIST makes *Skymaster* air-borne. Specially equipped plane takes part in Operation Deepfreeze.

S2F *SENTINEL* —Effective sub-killer may operate from carrier.

XF2Y-1 *SEADART*- A delta-wing seaplane, faster than sound.

XFY-1 *POGO* makes vertical take-off, landing.

H-21, aerial minesweeper, can also pull grounded boats clear.

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HELICOPTERS

AD *SKYRAIDER*—Standard carrier-borne attack aircraft. Weight 20,000 lb, speed over 300 mph.

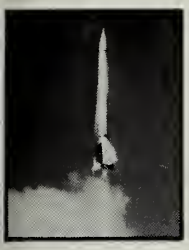
HTL-4, Utility copter, served in Korea, is rated as a trainer.

HRP-2 *RESCUER*—All metal, carries 2-man crew and litters.

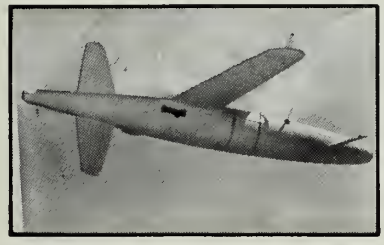
HO3S-1- Called "The Workhorse of Korea."

HUP-1 *RETRIEVER*, shipborne copter, has outrigged tail fins.

REMOTE CONTROL



VIKING—Research rocket obtains weather data.



GORGON—Air-to-air missile is slung underneath a Navy PB4Y ready for an experimental flight.

HELLCAT converted into drone is handled by radio control box.

DRONE HELICOPTER with emergency pilot aboard is being monipulated by ground control operator.

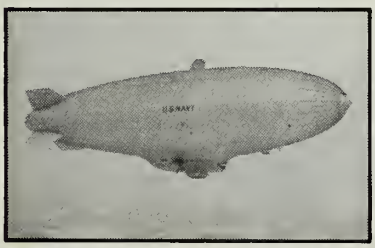
FJ-4 *FURY*—Versatile carrier-based jet, has near-sonic speed.

AJ-2P *SAVAGE*—Powerful carrier attack plane, 50,000 pounds.

R3Y *TRADEWIND*—America's first turbo-prop seaplane transport has more than 22,000 horsepower.

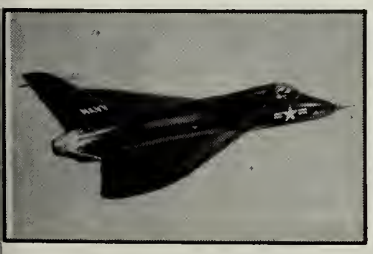
P2V-*NEPTUNE*—Long-range patrol plane has take-off weight of 58,000 pounds, range over 3500 miles.

A4D *SKYHAWK*—This midget atom bomber is tiny but potent.



ZPG-2W AEW AIRSHIP—Airborne Early Warning lighter-than-air craft are fulfilling vital roles today.

XP6M-1, *SEAMASTER*, World's first four-jet seaplane cruises at 40,000 feet, capable of speeds over 600 mph. Its missions range from mine-laying to photo reconnaissance.



F4D *SKYRAY* is a tailless, sweptback jet, designed for interception and is catapulted from carriers.

WV-2 is search-warning version of R7V *Super-Constellation*, plays big role in continental defense.

FLYING platform controlled by weight shift.

USS FORRESTAL (CVA 59), latest in flattops, will launch largest and heaviest carrier aircraft.

AIRCREWMEN make mechanical check up and gas up jets lined along the edge of deck of USS Boxer (CVS 21).

(*Continued from page 31*)
stated intention increased interest in the program, and more attention was given to pilot and crew training.

The immediate result of this Board's meeting was the creation of a naval aeronautics office, under Captain Mark L. Bristol (Chambers had been retired, but was retained on active duty). Other steps were the assignment of the battleship USS *Mississippi* as an experimental aviation vessel, and the creation of a naval air station at Pensacola, Fla. As World War I progressed in Europe and both sides began using their latest aviation developments, naval observers were sent overseas to study foreign aviation.

Then, in March 1915, with the possibility of American entry into the war increasing, Congress appropriated $1,000,000 for naval aviation, while authorizing the President to create a National Advisory Committee for Aeronautics. The legislative body also increased the authorized allowances for flight personnel and liberalized their flight pay. In July of the same year training classes, which had come to a halt during the Vera Cruz operations, were resumed at Pensacola (it had begun training in January 1914); and experimentation with available plane types and warfare techniques proceeded apace.

In March 1916, CAPT Bristol transferred his command from Washington to assume command of USS *North Carolina* (an armored cruiser which had replaced *Mississippi* as an experimental ship), but he was still assigned additional duty as supervisor of all naval aeronautics, aircraft and air stations. With *North Carolina's* four planes, Bristol carried out a number of exercises which were highly instructive in building planes that would more nearly fit the Navy's specialized needs.

Finally, in June 1916, the General Board issued the results of a serious three months' study of naval aviation's possibilities. While they recommended spending $5,000,000 on aviation during the coming three years, and had many positive conclusions to support the allocation of this amount, they were still of the opinion that aviation in the Fleet appeared likely to be confined to a subordinate role. They also concluded that aerial bombing was too inaccurate to be of any value except against land targets.

The "dedicated men" in naval aviation, however, continued their work right up until the U. S. joined forces in World War I. Chambers, Wilkinson, Mustin, Saufley and Rockwell, McCrary and Maxfield (the latter two in LTA) and Towers (who had been checking up on aviation "over there") were important names during the period.

That first world war brought into being a naval air force that consisted of 68 stateside and overseas installations—including 11 training stations where there had been only one in operation at the beginning of the war—and a total of nearly 37,500 aviation personnel (both officer and enlisted), as compared to some 300 just before U. S. entry into the war.

From the day Navy birdmen landed in France in June 1917, through their first flights in July, and some 22,000 following flights, they racked up an outstanding record—considering the scarcity (and crudeness) of the few planes available. On their beginning flights, Navy pilots were flying foreign planes, some of them too light to carry machine guns or bombs. Despite such handicaps the Navy's air force patrolled over 800,000 nautical miles and dropped over 100 tons of explosives. This was done by 1147 officers and 18,308 enlisted men—with only 19 casualties.

Immediately following World War I, the use of USS *Shawmut* (CM 4), a minelayer, as a seaplane tender gave a big boost to the integration of aviation with the Fleet. Experiments with *Shawmut* were successful enough to lead to the assigning of another minelayer, USS *Aroostook* (CM 3) as the Pacific Fleet's tender. These makeshift tenders were followed in December 1921 by USS *Wright*—an unfinished wartime hull which was completed for her specific assignment as a tender. These craft made it possible for flying boats such as the H-16s to operate with the Fleet.

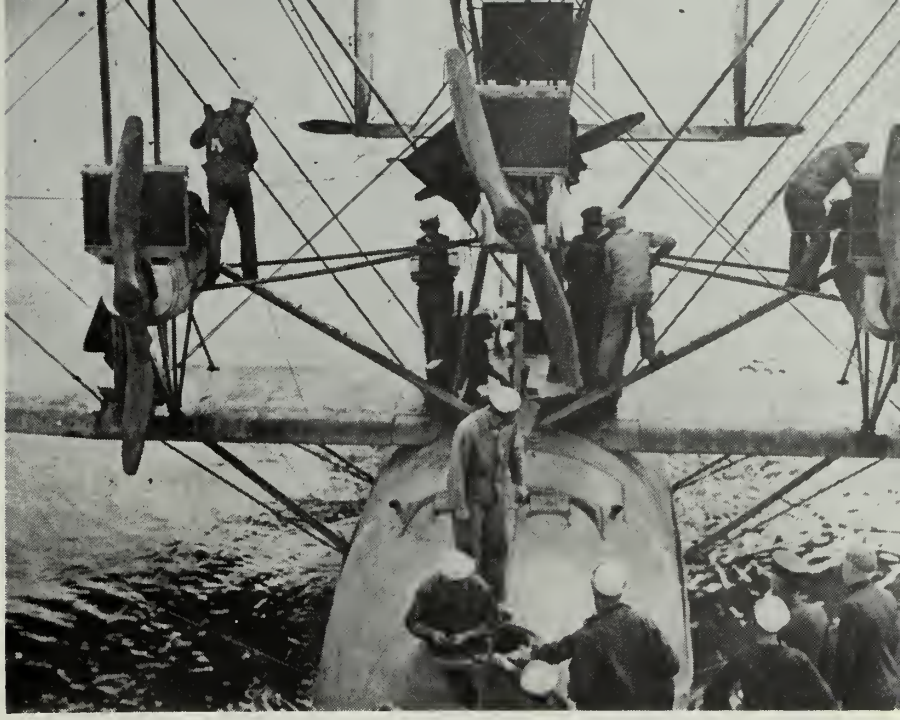
Then came the carriers. On the basis of British successes with carriers commissioned in 1918 and 1919—and recommendations of numerous Navy flying officers—the General Board in 1919 OKed conversion of a collier into a carrier. Result was the recommissioning of USS *Jupiter* as USS *Langley* (CV 1) in March 1922.

F-BOAT PILOTS OF WORLD WAR I wearing flight gear of the day rev up the motor of their flying boat as they prepare to evacuate combat wounded.

The early and middle Twenties saw a number of important happenings in naval aviation:

- Captain William A. Moffett succeeded to the directorship of naval air in March 1921, just in time to become (on 12 July) the first chief of the newly-created Bureau of Aeronautics.
- Bombing experiments with several obsolete Navy ships and captured German craft gave the Navy air and ship branches valuable information on bombing techniques and the effect of hits and near misses on various types of ship hulls.
- Dive bombing was being pushed to a higher degree of effectiveness, mostly by Marine fliers.
- The evolution of plane types specifically designed for shipboard operation, and the development of missions, continued. By 1922 Navymen were using bombers from torpedo squadrons both for torpedo work and for such tasks as tractor duty and spotting.
- Different kinds of arresting gear were tested, with the result that *Langley* by 1923 could handle something like three planes in ten minutes.
- Catapults using compressed air and, later, powder charges, were tested in a variety of positions aboard different ships, leading eventually to the flush-deck compressed air types used in the Thirties.
- In August 1925 the Navy (which had already flown the first plane across the Atlantic in May 1919) launched the first serious attempt to fly the broad expanse of the Pacific—and wound up with one of naval aviation's most unusual stories (See page 53).
- Lighter - than - air experiments, which had begun with endless talk and recommendations, had progressed through the Navy's first "free" balloon (in 1915), kite balloons, the "A," "B" and "C" type airships of the WW I period, and the ZR dirigibles, including the German-built *Los Angeles* (ZR 3), which became one of the Navy's most successful dirigibles.

Although the Navy's first carrier, USS *Langley,* had proved herself too small, too slow, and lacking in adequate facilities, she was a beginning and she made an admirable test vehicle for two vessels under construction, USS *Lexington* (CV 2) and USS *Saratoga* (CV 3). These two hulls, originally laid down as battle cruisers, were slated for scrapping under the Washington Naval Treaty of 1922. Their conversion was possible under the treaty's allowance for nonexistent carriers.



NAVYMEN MAKE FINAL check on NC-4 Curtiss flying boat in 1919 as they prepare it for first trans-Atlantic flight. Flight was from Newfoundland to Portugal.

With the commissioning of "Lex" and "Sara" in late 1927, the U. S. Navy not only had the world's largest carriers, she could also lay claim to the most up-to-date aircraft and a system of training which was producing highly skilled pilots and enlisted personnel, all achieved by the "hang on and fight" philosophy of such men as Towers. Participating in the Fleet exercises of 1929, these two carriers helped demonstrate the effectiveness that aviators had long been claiming for their craft. Other exercises in 1930 and 1931 furnished answers to hundreds of questions about combined sea-air commands.

The Navy got Congressional authorization for an additional flattop—the 14,000-ton *Ranger* (CV4) which was launched in February 1933 and had the honor of being the first Navy ship to be designed and built as a carrier. Sufficient funds were also provided to permit laying down USS *Yorktown* (CV 5) and USS *Enterprise* (CV 6) in mid-1934.

Right along with the upswing in the carrier outlook, relief measures of the troubled Thirties provided the Navy with improved air station facilities around the country, while the Navy-industry brain and talent pool continued to design and produce planes and equipment especially suited to shipboard use.

In the later Thirties the pressing need for tenders to "mother" the

PLANE CAPTAIN TO PILOT—Enlisted plane captain gives 'Plane ready to go' signal to pilot of jet fighter preparing to take off at NAS Jacksonville.

FIRST ARRESTED LANDING on temporary deck of armored cruiser USS *Pennsylvania* is met by men who were forerunners of present day aircrewmen.

Navy's growing fleet of patrol planes resulted in conversion of *Langley* and a number of destroyers to that duty. These were followed (in 1938) by plans for building two large and six small tenders between 1938 and 1941. By then all treaty limitations on armament had been forgotten.

That man who "hung on" back in 1913—and who had continued to set an example for the Navy's air personnel – now RADM Towers – was chosen to head the Bureau of Aeronautics in 1939, just in time to use his valuable experience in shaping up naval air power for the battles which lay ahead.

By mid-1940 the Navy had approximately 1700 aircraft and 2965 pilots. Plane types of the period included the F4F *Wildcat* (in production), the F4U *Corsair* and the F6F *Hellcat* (well along in the design stage); all were to make names for themselves in the coming war.

In mid-1941 USS *Long Island* (CVE 1) (formerly AVG 1) was commissioned as the first escort carrier. Converted from a commercial hull, she was the first of a long line of small seagoing airfields which were to see service in World War II.

In December 1941 naval air power consisted of some 5000 aircraft, 8 carriers of various sizes, 34 tenders (of which 10 had been designed and built for their job) and approximately 30,000 personnel—not much of a force, considering what was to come. By the date of Japan's surrender, that force consisted of some 41,000 planes, 437,000 personnel (approximately 61,000 of them pilots) and 99 carriers.

As war flared in the Pacific, the Navy's rapidly expanding air force carried out innumerable raids and tangled in two major battles with the enemy from Pearl Harbor through the Battle of Midway. Their effectiveness was instrumental in turning the defensive Pacific war into one of limited counterattack in late 1942. From then until war's end Navy airmen played a major part in the fight.

- They provided much of the air support in the Aleutians.
- Fast, new *Essex* and *Independence*-class flattops struck Marcus, Wake, the Gilberts, the Marshalls and the Mariana Islands—in fact, they participated in every major battle and campaign in the Pacific after August 1943.
- Carriers covered Philippine operations in 1944 and 1945.
- They provided air support at Iwo Jima and Okinawa, launched raids on the Japanese home islands and were standing by when the enemy surrendered.

War in the Atlantic was quite different from that in the Pacific, but the Fleet's flyboys were no less active. Patrol aircraft worked effectively to reduce the submarine menace. Carriers covered the Moroccan landings in 1942. They escorted convoys, in an antisubmarine warfare tactic which reduced the German undersea fleet by 36 subs, and enabled our troop and cargo vessels to ply their trades unmolested. Carriers also covered the landings in southern France in 1944, while battleship and cruiser aircraft spotted for naval gunfire.

But volumes have already been written about naval aviation and its part in the conflict; in brief, carriers and their complements played a distinguished part in every phase of the war at sea. They had led the victorious campaign across the Pacific, sweeping aside enemy aerial opposition, sinking warships, destroying supply vessels, and assisting the hard-pressed soldiers and Marines fighting the ground war. PacFlt's air force, at war's end, could balance the loss in aerial combat of 451 carrier planes against an enemy loss of some 12,000 planes. Navy and Marine ground units accounted for another 3000 enemy planes. And carrier aircraft sank 711,256 tons of war vessels and some 1,390,000 tons of enemy merchant shipping. Only 11 carriers were lost out of a total of 110. Six of these were unarmored escort carriers; the 10,000-ton *Princeton* was mortally wounded during the Battle for Leyte Gulf and four others were sunk in 1942, before carrier task group tactics had been devised.

A brilliant war record for sure. The end of war brought with it new challenges, but the Navy was already on the way to answering many of them. Advanced techniques in mothballing processes had to be formed. The development of planes adapted to the necessities of carrier operation, yet the fighting equals of any in the world—the development of carriers strong enough and long enough to handle these new planes—the difficulties of carrier flying with jet planes having slow acceleration and high landing speed—these were some of the problems faced in post-WW II.

At the same time Navy task forces, each built around one or two carriers, were supporting U. S. policy in the Mediterranean and in the western Pacific. So it was that USS *Valley Forge* (CV 45, now CVS 45) found herself launching air strikes shortly after 25 Jun 1950, the date on which communist forces launched their attack against South Korea. Since UN forces already had control of the surrounding seas, the carriers concentrated on supporting the land campaign and taking part in the air offensive. From October 1950 until hostilities ceased in July 1953, a task force with two to four carriers remained continuously at sea off Korea, to launch planes in support of ground troops, cut communication lines and attack industrial and supply centers.

But yesterday's carrier strikes and bombing missions are a fading memory; todays' are merely drill. Aviators of the caliber of Mustin, Saufley, Towers and the late Marc A. Mitscher have become names in history. But the naval air force they fought with—and for—is today perhaps the most important element of your Navy.

—Barney Baugh, JO1, USN.

Airborne Dragnet

A FAR CRY from our country's first early warning system—comprised of two men, horses, lanterns and a church steeple—is the Navy's new Airborne Early Warning Wing operating out of NAS Patuxent, Md.

Today's "Paul Revere of the Navy" has the same purpose, but he watches for enemy attack from a much higher vantage point as the WV squadrons patrol the sky out over the Atlantic's waters in WV-2 *Super Constellations*. AEWINGLANT has the specific mission of providing an aerial radar patrol barrier over the Atlantic.

More comfortable, too, than an old church steeple is the atomic age lookout duty, for among the complicated radar and electronic detection gear have been tucked the comforts of home. Facilities for the crew included in this flying radar station are an electric galley, bunks, and a lounge with tables and reclining seats.

Top: Modern Paul Revere rides high in WV-2 *Super Constellation*. *Top right*: Crew members man their stations in the CIC room. *Middle right*: Target sighted during training flight is plotted. *Lower right*: Fried eggs breakfast is prepared on electric stove in plane's modern galley. *Lower left*: Crew members relax during off duty hours of extended flight.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **FLYERS NEEDED**—The increased requirement for junior officer ranks of Navy pilots has resulted in a call for requests for active duty from pilots in the inactive Reserve.

Applicants for active duty must agree to remain on active duty for at least three years and may, if they desire, request retention beyond the minimum period or integration into the Regular Navy.

Inactive officers, who have been on inactive duty for less than a year, can request integration into the Regular Navy at the same time they request active duty. Those who have remained on inactive duty for more than 12 months are not permitted to request integration until after they return to duty.

Because of the shortage of junior officers, it has been pointed out that the career opportunities for Reservists, who answer the call and return to duty, will be greatly enhanced. The shortage of lieutenants and other junior officers means that promotions will be faster and that the best qualified men will be getting more important billets sooner. It makes an attractive promotion picture.

Another inducement to the Reservists concerned is the announcement that a majority of aviators recalled will more than likely be given a tour of shore duty as their first assignment after recall, giving them a chance to get back into the swing of things before going to sea.

Interested Reservists should submit their applications to the Chief of Naval Personnel (attn: Pers-Blllr), via their district commandant or the Chief of Naval Air Reserve Training, as appropriate. Other details can be found in BuPers Inst. 1331.4.

• **FLYING DUTY FOR WAVES** — Enlisted Waves in pay grade E-3 who have not received service school training are needed for flight orderly duty in Air Transport Squadrons on both coasts. Since this duty involves flying, only volunteers are accepted.

Applicants must not weigh more than 130 pounds, must have a clear record, enjoy meeting the public and must have served at least one year at their current duty station. Interested volunteers should contact their personnel officer for further information.

• **FEDERAL INCOME TAX** — Navymen everywhere are reminded that the Federal Income Tax return deadline is 15 April—unless you are living or traveling outside the U. S. or its territories, in which case you have until 15 June to file a return.

Although some naval personnel—because of exemptions and deductions—will not actually pay taxes, a return must be filed if your gross income is $600 or more. A return also must be filed before you can get a refund on the withholding tax the Navy is required to take from your pay.

To help you make out an accurate return your ship or station has available Forms 1040 ("long form") and 1040A (known as the "short form," but now a business machine card), and has furnished you with a "W-2" form, a statement of wages paid you and taxes withheld. Also available are copies of the BuSandA pamphlet "Federal Income Tax Information," which tells what you need to know about the income tax laws.

Completed forms should be mailed to the District Director of Internal Revenue in the district where your legal residence is located. However, career personnel, or personnel who have no legal residence, may file their returns with the District Director of Internal Revenue, Baltimore 2, Md.

Personnel with no legal residence who are serving in the below-named areas should file with the district directors listed: 1) In Alaska, with the director at Tacoma, Wash.; 2) Hawaiian Islands, with the director at Honolulu, T. H.; 3) Canal Zone, with the director at Jacksonville, Fla.; 4) Virgin Islands, with the District Director of Internal Revenue, Customhouse Building, New York, N. Y.; and 5) men on duty in Puerto Rico may file with the Director of Internal Revenue, Santurce Building, Santurce, P. R.

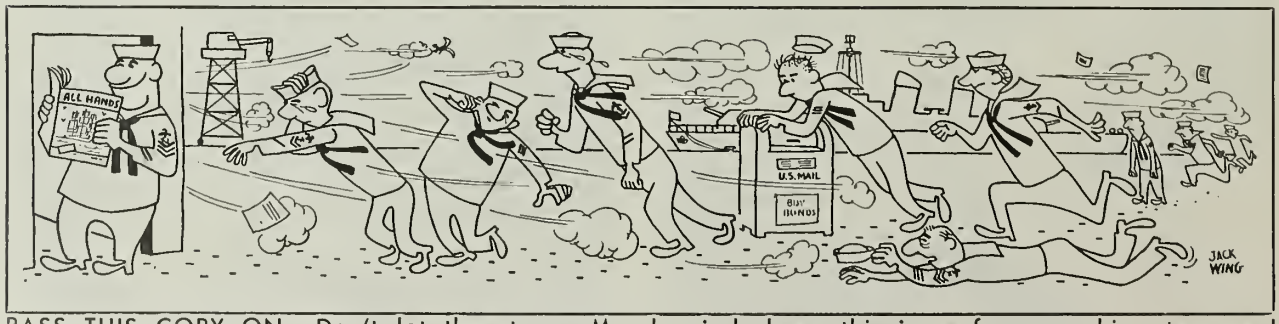
• **ACTIVE DUTY AGREEMENTS** — Active duty agreements are now being offered to qualified junior Naval Reserve officers serving on active duty.

If you are interested in being retained on active duty for a period of definite duration, you may apply for an active duty agreement to become effective in fiscal year 1957.

If your active duty agreement expires in fiscal year 1957 but you are not eligible to apply for successive agreements, you will be retained on active duty in indefinite status.

Applications are desired from Reserve officers—except warrant officers—on active duty in the following grades and code categories:

• Male officers of the line, line



PASS THIS COPY ON—Don't let the strong March winds keep this issue from reaching ten men!

(aviation), restricted line, Supply Corps and Civil Engineer Corps, in grades up to and including lieutenant with date of rank of 1 Jul 1953.

• Medical Service Corps, Nurse Corps and Chaplain Corps officers, in grades up to and including lieutenant, with date of rank of 1 Aug 1951.

• Medical and Dental Corps officers in all grades.

Applications should be submitted in letter form to the Chief of Naval Personnel (Attn: Pers B115), Navy Department, Washington 25, D. C., via your commanding officer or reporting senior. You should send in your application four to six months before the date you wish your agreement to become effective.

You may request an agreement of from one to five years in length.

Inactive Reserve officers are not eligible to apply for active duty agreements. However, such officers may apply for active duty under the current voluntary recall program (outlined in BuPers Inst. 1331.4) and later qualify for active duty agreements.

Complete information on the program will be found in BuPers Inst. 1120.22A.

• **KOREAN PUC** — Ships or units which have had trouble establishing their eligibility to the Korean Presidential Unit Citation can get the final word on the subject by addressing an inquiry, with full details, to Chief of Naval Personnel, (Attn: Pers-E3), Washington 25, D.C.

The Bureau has lists of all ships and units which were attached to the Seventh Fleet, Task Force 90, and Task Force 95, and the dates of their attachments and eligibility for the Korean PUC. Since the lists are quite large, publication has been considered inadvisable. As a result the Bureau will handle the requests from ships or units in the field which have had trouble establishing their eligibility.

• **PHONETIC ALPHABET** — The Navy's ABCs have been revised—or, at least, the Navy's phonetic alphabet is no longer the familiar Able, Baker, Charlie. The Navy is promulgating instructions announcing adoption of the phonetic alphabet used by the International Communication Aeronautical Organization. ICAO's "ABCs" are already standard with civilian airline pilots and are used by the U. S. Air Force in communicating with other than Army and Navy forces. The Alfa, Bravo, Charlie designations also have been adopted by member nations of the North Atlantic Treaty Organization and will be used nationally and internationally in communications—a step made necessary by defense alliances (such as NATO) and training exercises involving personnel who speak a number of different languages.

Here is the new alphabet:

A — Alfa	N — November
B — Bravo	O — Oscar
C — Charlie	P — Papa
D — Delta	Q — Quebec
E — Echo	R — Rameo
F — Foxtrot	S — Sierra
G — Galf	T — Tango
H — Hatel	U — Unifarm
I — India	V — Victor
J — Juliett	W — Whiskey
K — Kila	X — Xray
L — Lima	Y — Yankee
M — Mike	Z — Zulu

Commanding officers are being instructed to institute training in the new alphabet for all personnel who normally use the phonetic alphabet.

• **EXTENSIONS OF ENLISTMENT** — Agreements to extend enlistments of certain Naval Reservists serving on active duty are going to be cancelled before they become effective.

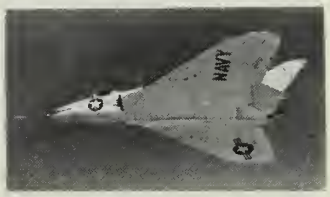
During the period between 19 Jun 1951 and 8 Apr 1953 personnel were being accepted for initial enlistments in the Naval Reserve for periods of four years and minority. They incurred an eight-year service obligation in accordance with the Universal Military Training and Service Act as amended.

Some were permitted to agree to extend their enlistments. Since an agreement to extend a contractual enlistment—by which an individual is already obligated to remain a member of the Naval Reserve—is without effect, such extensions that were permitted to become operative were cancelled and the Reservists pay accounts have been checked for mileage paid.

BuPers Notice 1133, of 10 Nov 1955, directed commands to cancel agreements to extend enlistments of Naval Reservists on active duty in the category described above, but stated that this action did not change or modify any volunteer agreement for active duty.

QUIZ AWEIGH

This issue of ALL HANDS is the naval air force issue so it is only appropriate that we devote this month's quiz to aviation. It isn't too difficult and if you've read the issue through, you should register 4.0. If you have trouble, study this issue carefully.



1. This aircraft is one of the newest in the naval air force. The single seat interceptor-fighter is designated the (a) F4U *Corsair* (b) F4D *Skyray* (c) AD 1 *Skyraider*.

2. This supersonic carrier-based plane has a wing that is described as (a) delta (b) swept back (c) inverted gull wing.

3. You don't see this rating specialty designator too often. It is worn by (a) an air controlman (b) an aerial gunner (c) a journalist radio announcer.

4. This rate was the result of the combination of five wartime ratings. It was established in (a) 1946 (b) 1948 (c) 1950.

5. You'll easily recognize this old time aircraft as an (a) F8F *Bearcat* (b) SBD *Dauntless* (c) TBM *Avenger*.

6. Although this type aircraft is no longer in operation, it performed many missions before being turned out to pasture. When first built, the plane's primary mission was to operate as a carrier-based (a) fighter-interceptor (b) torpedo bomber (c) transport.

YOU'LL FIND THE ANSWERS TO THIS MONTH'S QUIZ ON PAGE 57.

THE BULLETIN BOARD

For the Family Man: Scholarships Are Open to Navy Juniors

ARE YOUR YOUNGSTERS approaching the age where you must give serious thought to their future schooling? If so, you may be interested to know there are scholarships available exclusively for children of military personnel.

There are scholarships made available by nine groups. They are: The Clausey Medal of Honor, the Navy Wives Clubs of America, the Valley Forge Military Academy, the Daughters of Cincinnati, the Admiral Nicoll Ludlow, the St. Margaret's School for Girls, the Naval Academy Women's Club, the Society of Sponsors of the U. S. Navy, and the La Verne Noyes scholarships. Here's a brief description of each:

• *The Clausey Scholarship* provides for an outright grant to be made each year in an amount not to exceed $500. This is to be used at or beyond the college level for a child of an officer or an enlisted man of the Navy or Marine Corps who was killed in action or who died as a result of wounds received in actual combat during World War II or the Korean conflict. It was established in memory of the late Lieutenant John Joseph Clausey.

• *The Navy Wives Clubs Scholarship* provides awards to sons and daughters of enlisted men in the first seven pay grades of the Navy, Marine Corps, or Coast Guard, active, retired with pay, or deceased. It is to be used in obtaining college educations, vocational, business or other training which will enable the recipient to make more valuable contributions to society than would otherwise be possible. Each award will be an outright grant of at least $250 per academic year for the boy or girl selected.

• *The Valley Forge Military Academy* has offered eight scholarships yearly to sons of regular officers of the armed forces having high academic standing, and who are interested in military life. They are awarded for a three-year period in the amount of $1015 per year, which is about half of the all-inclusive tuition rate. The applicant must be either a boy between 14 and 16 years of age preparing to enter the tenth grade who will continue on at Valley Forge to receive his secondary school diploma, or a young man preparing to enter the twelfth grade who will receive his secondary school diploma and continue on for two years of junior college to receive a Junior College Associate in Arts diploma from the Academy.

• *The Daughters of the Cincinnati Scholarship* will make awards to daughters of regular Army, Navy or Air Force officers in the amount of $500 to $600 per annum, and may be awarded each year until graduation provided the student maintains a high standard of grades and character.

• *The Admiral Nicoll Ludlow Scholarship* was established in 1916 by the Admiral in memory of his son, Nicoll Ludlow, Jr. It provides for two different scholarships. One is for sons of commissioned line officers of the U. S. Navy at St. Paul's School, Concord, N. H., in the amount of $200 to full tuition of $1800 according to financial need. Applicants must be between the ages of 12 to 18. The other offers two scholarships for daughters of commissioned line officers of the U. S. Navy at the Emma Willard School, Troy, N. Y. These scholarships vary in amounts but are usually no more than half the room, board, and tuition which is $2,200 per year The applicants must be girls between the ages of 13 and 19.

• The Headmistress and Board of Trustees of *St. Margaret's School for Girls* located at Tappahannock, Va., have established an annual tuition scholarship in the amount of $325 on behalf of an entering freshman at the secondary school level who is the daughter of a member of the Naval service (active, retired or deceased). The requirements include ability to do the work, character and personality which would benefit from studies at this school as well as evidence of need of scholarship assistance.

• The members of the *Naval Academy Women's Club*, Annapolis, Md., have established an annual competitive, tuition scholarship in the amount of $300 to be used for education on the college level for the daughter of an officer (active, retired, or deceased) of the regular Navy or Marine Corps, with preference being given to the daughter of a deceased man. The award will be made on the basis of scholarship, character and need.

• *The Society of Sponsors of the United States Navy* awards annually to sons of deceased and retired Naval and Marine Corps personnel, one or more scholarships for one academic year to preparatory schools for the United States Naval Academy.

To receive such an award, an applicant for a scholarship must be acceptable to the Scholarship Committee of the Society of Sponsors as to character, aptitude for the naval service, scholastic standing and physical fitness. The financial situation of the applicant's mother, or of the applicant in case his mother is dead, must be such as to warrant the expenditure of the funds of the Society in making such an award.

The number of scholarships to be awarded in any one year will depend upon the state of the Society's Scholarship Fund and the number of acceptable candidates for such scholarships for that particular year.

All-Navy Cartoon Contest—
F. K. McVicker, SK1, USN.

"Are you cleared for secret?"

When, in any one year, the number of acceptable candidates exceeds the number of scholarships available, the awards will be made on a competitive basis, the factors considered being those stated in the paragraph above.

Applications for such scholarships should be made to the Chairman of the Scholarship and Welfare Committee of the Society of Sponsors of the United States Navy, Mrs. W. D. Leggett, 22 North Church Street, Schenectady, New York.

• *La Verne Noyes Scholarships* are awarded only in the universities and colleges listed below.

These scholarships provide for the payment of the tuition, in part or in full, of deserving students needing this assistance to enable them to procure a university or college training. This is done without regard to differences of sex, race, religion, or political party, but only for those who shall be citizens of the United States of America.

Candidates must be blood descendants of a person who served honorably in the U. S. armed forces in World War I.

Eligible students should make application direct to the listed university or college which they wish to attend:

Amherst College	Amherst, Mass.
Beloit College	Beloit, Wis.
Bradley University	Peoria, Ill.
California Institute of Technology	Pasadena, Calif.
Carleton College	Northfield, Minn.
Coe College	Cedar Rapids, Iowa
Cornell College	Mount Vernon, Iowa
Cornell University	Ithaca, N. Y.
Denison University	Cranville, Ohio
Grinnell College	Grinnell, Iowa
Howard University	Washington, D. C.
Illinois College	Jacksonville, Ill.
Illinois Wesleyan University	Bloomington, Ill.
Indiana University	Bloomington, Ind.
Iowa State College	Ames, Iowa
Kansas State Agricultural College	Manhattan, Kans.
Knox College	Galesburg, Ill.
Lawrence College	Appleton, Wis.
Michigan State College of Agriculture and Applied Science	E. Lansing, Mich.
Monmouth College	Monmouth, Ill.
New Mexico College of Agriculture and Mechanic Arts	State College, N. Mex.
North Dakota Agricultural College	Fargo, N. Dak.
Northwestern University	Evanston, Ill.
Oberlin College	Oberlin, Ohio
Oklahoma Agricultural and Mechanical College	Stillwater, Okla.
George Peabody College for Teachers	Nashville, Tenn.
Purdue University	Lafayette, Ind.
South Dakota State College of Agriculture and Mechanic Arts	Brookings, S. Dak.
Southern Methodist University	Dallas, Tex.
State University of Iowa	Iowa City, Iowa
Texas Technological College	Lubbock, Tex.
University of	
Alabama	University, Ala.
California	Berkeley, Calif.
Chicago	Chicago, Ill.
Colorado	Boulder, Colo.
Illinois	Urbana, Ill.
Kansas	Lawrence, Kans.
Michigan	Ann Arbor, Mich.
Minnesota	Minneapolis, Minn.
Missouri	Columbia, Mo.
Nebraska	Lincoln, Nebr.
North Dakota	Grand Forks, N. Dak.
Oklahoma	Norman, Okla.
Southern California	Los Angeles, Calif.
Texas	Austin, Tex.
Wisconsin	Madison, Wis.
Wabash College	Crawfordsville, Ind.
Washington University	St. Louis, Mo.

All-Navy Cartoon Contest—
W. P. Duensing, HM1, USN.

"Hey, Chief. We got us another volunteer!"

In addition, The Board of Trustees of the Mount Vernon Seminary and Junior College, Washington, D. C., will grant a reduction of 10 per cent in the tuition fee for both boarders and day scholars, to daughters of officers and of widows of officers of the regular Navy, Marine Corps, Army, Air Force, and Coast Guard.

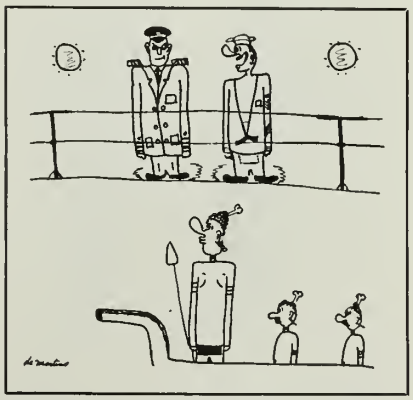
Scholarship selection committees for the Clausey and Navy Wives Scholarships will make selections from high school graduates or above.

Candidates must first be positive that they will be admitted to the schools of their choices, and are advised to apply before 1 April of the year they wish to enter.

Application blanks may be obtained from the Chief of Naval Personnel (Attn: Pers G221). Those applying for the Navy Wives Club Scholarship may also obtain application forms from the secretary of a Navy Wives Club or from Mrs. Genevieve Harris, Secretary of the Scholarship Foundation, whose address is 3407 Meadowbridge Road, Richmond, Va. When requesting application forms, the applicant should specify the scholarship for which he wishes to compete. Application blanks for the Naval Academy Women's Club Scholarship may also be obtained from the Headquarters of Naval District Commandants and from the Secretary of the NAWC. Applications for this scholarship must be submitted no later than 20 March of each year.

Other applications must be in BuPers by 15 April of each year.

All-Navy Cartoon Contest—
A. De Martino, TE1, USN.



"He wants to know if we have any movies to exchange!"

Reservists in Open Rates May Transfer to USN in Same Grades

As has been the practice in the past, Naval Reservists on active duty who are serving in rates considered to be 'open" are, if otherwise eligible, permitted to enlist or reenlist in the Regular Navy in their present pay grade if they are recommended by their commanding officer and meet the approval of the Chief of Naval Personnel.

The most recent list of open rates, as promulgated by BuPers Inst. 1130.4C, may be found below. "Open" rates are those in which the number of personnel on board, on a service-wide basis, is sufficiently short of requirements that normal advancement in rating may not supply the necessary personnel.

Commanding officers are authorized to discharge Naval Reserve personnel serving on active duty for the purpose of immediate enlistment or reenlistment in the Regular Navy either at the normal expiration of enlistment or at any time within three months before expiration of enlistment, or for the convenience of the government.

These are the present open rates for purposes of enlisting or reenlisting in USN:

QM1, QM2, QM3
RDC, RD1, RD2, RD3
SOC, SO1, SO2, SO3
TM2, TM3
GM2, GM3
GSC, GS1, GS2, GS3
FT1, FT2, FT3
MNC, MN1, MN2, MN3
ET1, ET2, ET3
IM2, IM3
OM2, OM3
TEC, TE1, TE2, TE3
RMC, RM1, RM2, RM3
CTC, CT1, CT2, CT3
YN2, YN3
PN2, PN3
MA2, MA3
SK2, SK3
DK2, DK3
CS2, CS3
SH2, SH3
JO1, JO2, JO3
LI2, LI3
DMC, DM1, DM2, DM3
MU1, MU2, MU3
MM1, MM2, MM3
EN2, EN3
MR1, MR2, MR3
BT1, BT2, BT3
EM1, EM2, EM3
IC1, IC2, IC3
ME2, ME3
FP2, FP3
DC2, DC3
PM1, PM2, PM3
ML2, ML3
SV1, SV2, SV3
CE1, CE2, CE3
CD3, CM2, CM3
BU1, BU2, BU3
SW1, SW2, SW3
UT1, UT2, UT3
AD2, AD3
AT1, AT2, AT3
AO2, AO3
AQC, AQ1, AQ2, AQ3
GFC, GF1, GF2, GF3
AC2, AC3
AB2, AB3
AE1, AE2, AE3
AM2, AM3
PR2, PR3
AG2, AG3
TD2, TD3
AK2, AK3
PH2, PH3
HM2, HM3
DT2, DT3

An emergency service rate is considered to be related to a general service rate if it is in the same pay grade and its abbreviation is formed by adding a third letter to the abbreviation of the general service rate. The emergency service rates related to QM2, for example, are QMQ2 and QMS2.

If you are not serving in an open rate, but are eligible for enlistment or reenlistment, you may be enlisted in the rate as shown below:

Pay grade in which now serving	*Rate in which you may enlist or reenlist in USN*
E-7	The pay grade E-6 rate of the related general service rating if pay grade E-6 is listed as open; otherwise pay grade E-5 of the related general service rating.
E-6	The pay grade E-5 rate of the related general service rating.
E-5	The pay grade E-4 rate of the related general service rating.
E-4	The pay grade E-3 rate of the general apprenticeship that forms the path of advancement to the rating held in the Naval Reserve.
E-3, E-2, and E-1	The rate held at time of discharge from the Naval Reserve.

Here are the eligibility requirements:

- You must be serving on active

WHAT'S IN A NAME

Sounding Balloon

Balloons are usually thought of as children's toys, especially the gas-filled variety that float away once you let go of the string. However, the Navy has taken the balloon, an oversize version, and has put it to work.

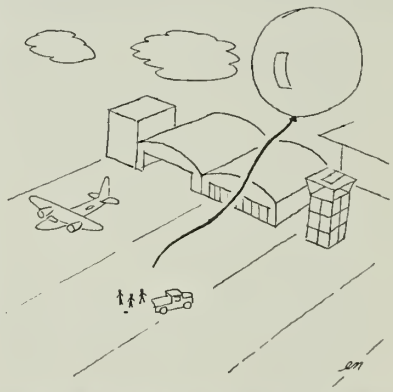
Used for sounding weather conditions, the Navy balloons have made a success of their duty assignment. Weather stations release small 10-gram balloons inflated to ascend at a definite rate. The elapsed time it takes for a balloon to disappear into the lowest layer of clouds is plotted in a mathematical equation. The answer will give the height of the clouds or "ceiling height."

Thus, the "depth" of the sky has been sounded by a method not too different from sounding the depth of the sea with line and lead. There are many ways of sounding the atmosphere, just as there are several more complicated methods of sounding the sea.

One of the more advanced methods of sounding the atmosphere may be accomplished by electronic sounding equipment attached to the balloon itself. This method is called radiosonde. Sonde (rhymes with blonde) is a French word and has the same meaning as the word sounding. Radiosonde equipment is attached to a large plastic balloon such as the Navy's "Skyhook," which is capable of maintaining a constant altitude.

Atmospheric data is gathered by the various instruments while the balloon is in flight — then this information is fed into a self-contained radio transmitter and broadcast back to the weather station. These flights not only provide information on speed and direction of the wind, but also give barometric readings which indicate the position of high and low pressure areas or "fronts."

Recently, radiosonde balloons have been



sent on flights over the Atlantic to collect weather data from this previously inaccessible area. With each new development comes a new word. Sounding the atmosphere over the ocean is called "transosonde."

This system is expected to provide more accurate weather forecasts for ships at sea and carrier-based aircraft. Shore-based naval facilities will also profit from transosonde. Air masses travel in channels or in certain general directions over different areas of the globe. Forecasters will be able to use information from a transosonde balloon drifting over the Pacific to predict weather that will eventually reach our west coast and possibly cross the entire United States.

Further field-evaluation tests are planned for this new system. Balloon flights are scheduled to begin early this year from the big naval installation in Yokosuka, Japan. The Japanese launched incendiary balloons during World War II, some of which reached California. It is expected, therefore, that transosonde will soon sound the atmosphere across the entire Pacific.

duty in the naval service, but not on active duty for training. If you are in an open rate, 12 months' of active duty must have been completed within 15 months before enlistment. If not in an open rate, no specific period of active duty is required.

- You must be a citizen of the United States or, if an alien, must present proof of your declaration of intent to become a citizen.
- You must meet the physical standards set forth in BuPers Inst. 1130.3. A request for waiver of slight physical defects may be submitted.
- You must be between 17 and 31 years old at time of enlistment or reenlistment. In order to qualify under the upper age limit, all active duty performed during and after World War II in the Navy or Coast Guard or their Reserve components may be deducted from your age if you have not reached your 40th birthday.
- You may not have more than one dependent if you enlist in pay grades E-1, E-2 or E-3. There is no dependency restriction if you enlist or reenlist in pay grade E-4 or above.

If you first enlisted in the Naval Reserve on or after 10 Aug 1955 and thus acquired an obligation to serve on active duty for two years, you may enlist in the Regular Navy only for a period of six years *if* your enlistment occurred after recruit training but before completion of 21 months' active duty.

If you first enlisted in the Naval Reserve on or after 10 Aug 1955 and acquired an obligation to serve on active duty for two years and are ordered to active duty at any ship or station directly without having basic recruit training, you may enlist in the Regular Navy only for a period of six years if your enlistment occurs before you complete 21 months' active duty.

If you are a Naval Reservist on active duty and are not included in the two categories immediately above, you are authorized to enlist or reenlist in the Regular Navy for four or six years.

All-Navy Cartoon Contest—
B. L. Peeples, AM1, USN.

"No, you're not late far muster! It's Sunday."

List of New Motion Pictures Ready for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N.Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are designated by (C). Distribution of these films began in January.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

The Scarlet Coat (435) (C): Historical Drama; Cornel Wilde, Anne Francis, Michael Wilding.

The Vanishing American (436): Western; Scott Brady, Audrey Totter.

The Return of Jack Slade (437): Western; John Ericson, Mari Blanchard.

The Dolly Sisters (438) (C) (Reissue): Musical; Betty Grable, John Payne, June Haver.

The Queen Bee (439): Drama; Joan Crawford, Barry Sullivan, John Ireland.

The Desperate Hours (440): Drama; Humphrey Bogart, Fredric March, Arthur Kennedy, Martha Scott, Dewey Martin, Gig Young.

Tarantula (441): Science-Fiction Drama; John Agar, Mara Corday.

The Crooked Web (442): Drama; Frank Lovejoy, Mari Blanchard, Richard Denning.

The Cobweb (443) (C): Psychiatric Drama; Richard Widmark, Lauren Bacall, Charles Boyer, Gloria Grahame.

The Big Knife (444): Drama; Jack Palance, Ida Lupino, Wendell Corey, Shelly Winters.

Top Gun (445): Western; Sterling Hayden, Karen Booth.

Toughest Man Alive (446): Melodrama; Dane Clark, Lita Milan.

No Man's Woman (447): Drama; Marie Windsor, John Archer.

The Man With The Gun (448): Drama; Robert Mitchum, Jan Sterling.

Love Me Or Leave Me (449) (C): Musical Biography, Doris Day, James Cagney, Cameron Mitchell.

Jupiter's Darling (450) (C) (Reissue): Musical; Esther Williams, Howard Keel.

Lucy Gallant (451) (C): Drama; Jane Wyman, Charlton Heston, Thelma Ritter, Claire Trevor.

The Green Buddha (452): Melodrama; Wayne Morris, Mary Germaine.

Desert Sands (453) (C): Foreign Legion Story; Ralph Meeker, Marla English.

Bobby Ware Is Missing (454): Kidnap Melodrama; Arthur Franz, Neville Brand.

Bedevilled (455) (C): Melodrama; Anne Baxter, Steve Forrest.

We're No Angels (456) (C): Comedy; Humphrey Bogart, Aldo Ray, Peter Ustinov, Joan Bennett.

A Man Alone (457) (C): Western; Ray Milland, Mary Murphy, Ward Bond.

The King's Thief (458) (C): Historical Adventure Drama; Ann Blyth, Edmund Purdom, David Niven.

All-Navy Comic Cartoon Contest—
C. W. Zuber, Jr., AO3, USN

"My Mother says . . . 'and if the boy dawn the street can make sergeant, why can't you?' "

Where to Look for Latest Information on Career Opportunities

HERE'S AN UP-TO-DATE list of the directives dealing with career opportunities and programs available to Navy enlisted personnel and officers, classified according to subject.

In the April 1955 issue of ALL HANDS were listed the basic Navy publications which would help you answer many of the questions concerning your career.

However, in normal day-to-day naval operations there is a continuing flow of information on your Navy career, service advantages, opportunities and benefits. This information appears in a variety of forms—in manuals, handbooks, regulations, pamphlets, catalogs, instructions and notices.

Although most of this material is generally available to all ships and stations, it's frequently difficult to locate once published, changes are frequently made and at irregular intervals and, at times, some information is unintentionally overlooked.

So here's your most recent check-off list, which supersedes that presented on page 50 of the July 1955 issue of ALL HANDS:

Subject	Pertinent Directive or Authority
ADVANCEMENT OR CHANGE IN RATE OR RATING	
GENERAL PROGRAMS	
Advancement in rate/rating:	
Policy:	BuPers Inst. 1430.7A; *BuPers Manual* (Pt. C, chap. 7, sec. 2)
Qualifications:	*Manual of Qualifications for Advancement in Rating* (NavPers 1B068)
Eligibility:	BuPers Inst. 1414.2A
Naval Reserve	*BuPers Inst. 1430.1A
Servicewide Competitive Examinations for Advancement to Pay Grade E-4, E-5, E-6, and E-7; policy, eligibility	BuPers Inst. 1418.7B
Changes in Rate, Rating, and Rate Symbols; policy	BuPers Inst. 1440.5A
SPECIAL PROGRAMS	
Advancement in Rating; Personnel under Instruction in Service Schools	BuPers Inst. 1430.5A
Change of Rating to ET, FT, AT, AQ and GF; policy, eligibility	BuPers Inst. 1440.12, BuPers Inst. 1440.-13, BuPers Inst. 1440.14
APPOINTMENT TO COMMISSIONED GRADE	
NAVAL ACADEMY, FLIGHT TRAINING, OCS	
Naval Preparatory School Training; policy, eligibility	Art. C-1203, *BuPers Manual*, BuPers Inst. 1531.2
Aviation Cadet Training Program; eligibility requirements; procedures for applying	BuPers Inst. 1120.20A
Appointment to Commissioned Grade, Regular Navy; policy, eligibility	BuPers Inst. 1120.7B
Appointment to Commissioned Grade, LDO, Regular Navy; policy, eligibility	BuPers Inst. 1120.18B
Officer Candidate School; policy, eligibility	BuPers Inst. 1120.11A
SPECIAL PROGRAMS	
Regular Navy Augmentation Program; policy, eligibility	BuPers Inst. 1120.12D
Appointment to Commissioned Grade, SDO (LAW), 1620; policy eligibility	BuPers Inst. 1120.21
Appointment to Commissioned Grade, Optometry, Pharmacy, and Medical Allied Sciences Sections of the Medical Corps, Regular Navy; policy, eligibility	BuPers Inst. 1120.8A
Appointment to Commissioned Grade in Administration and Supply Sections, Medical Service Corps, Regular Navy; policy, eligibility	BuPers Inst. 1120.15A
Appointment to Commissioned Grade in Administration and Supply Sections, Medical Service Corps Reserve, U. S. Naval Reserve; policy, eligibility	BuPers Inst. 1120.10A
Appointment to Commissioned Grade of Enlisted Women in the U. S. Naval Reserve; policy, eligibility	BuPers Inst. 1120.9A
Appointment in the Field of Sciences of Personnel in the Medical Service Corps, Naval Reserve; policy, eligibility	BuPers Inst. 1120.24
Nomination of Qualified Enlisted Personnel for NROTC Program; policy, eligibility	BuPers Inst. 1111.4B
TRAINING	
GENERAL TRAINING	
Enlisted Training Schools and Courses; policy quotas, eligibility for enrollment	*BuPers Inst. 1500.-25A, *Catalog of the U. S. Navy Training Activities and Courses* (NavPers 91769-B)
Information and Education Program; policy	BuPers Inst. 1560.1, Art. D-2103, *BuPers Manual Information and Education Manual* (NavPers 16963-C)
Enlisted Correspondence Course Program	*Catalog of Enlisted Correspondence Courses* (NavPers 91200-A)
SPECIALIZED TRAINING	
Naval Air Mobile Trainer Program; policy, eligibility	*BuPers Inst. 1306.31A
Training Program for Change in Rating to ET, FT, AT, AQ, GF, AND GS; policy, eligibility	BuPers Inst. 1440.12, BuPers Inst. 1440.-13, BuPers Inst. 1440.14
U. S. Naval School of Music, applications for courses	BuPers Inst. 1336.2A
REENLISTMENT	
Reenlistment and Voluntary Extension of Regular and Reserve Personnel on Active Duty; procedure	BuPers Inst. 1133.1B, Art. A-4203 and Art. A-4204, *BuPers Manual*
Reenlistment in the Regular Navy or Voluntary Retention on Active Duty of Inducted Personnel; policy, eligibility	BuPers Inst. 1133.B
Discharge Up to One Year in Advance of Normal Expiration of Enlistment Date in Order to Reenlist; policy, eligibility	BuPers Inst. 1133.4
Reenlistment in the Regular Navy of Reserve Personnel Serving on Active Duty; Policy, eligibility	BuPers Inst. 1130.4C
Assignment to Duty of Personnel on Reenlistment; policy options, choice of duty, etc.	BuPers Inst. 1306.25B
Assignment to a School as an Incentive for Reenlistment; policy, eligibility	BuPers Inst. 1133.5

Subject	Pertinent Directive or Authority
SPECIAL DUTY AND ASSIGNMENT	
GENERAL POLICY	
Requests for Change of Duty; policy	Art. C-5203, BuPers *Manual*
Sea/Shore Rotation; shore duty eligibility list; policy	BuPers Inst. 1306.20B
Training and Administration of the Naval Reserve; duty in; policy, eligibility	*BuPers Inst. 1001.7A
Retention on Active Duty and Recall of Enlisted Naval Reserve and Fleet Reserve Personnel; information concerning	BuPers Inst. 1001.21
Assignment of Enlisted Personnel to the Nuclear Power Training Program; policy, eligibility	BuPers Inst. 1306.53
Assignment and Rotation of Enlisted Women; policy	BuPers Inst. 1306.10B
SPECIAL ASSIGNMENTS	
Transfer and Assignment for Humanitarian or Hardship Reasons; policy, eligibility	BuPers Inst. 1306.24A
Assignment of More Than One Member of Same Immediate Family to Same Unit; policy	Art. C-5209, BuPers *Manual*, BuPers Inst. 1306.33
Assignment to Duty of Sole Remaining Sons; policy	BuPers Inst. 1300.11
Assignment to Naval Missions, Attaches, Military Aid Groups, Joint Staffs, SHAPE; policy, eligibility	BuPers Inst. 1306.6A
Assignment to Recruiting Duty; policy, eligibility	Art. C-5208, BuPers *Manual*
Assignment to Duty as Instructors; policy, eligibility	BuPers Inst. 1336.1A BuPers Inst. 1306.22B *BuPers Inst. 1306.42 (applies to musicians only)
Assignment with Naval Security Group Activities; policy, eligibility	BuPers Inst. 1306.23B
Assignment to Nuclear Power Program; policy, eligibility	SecNav Inst. 1000.3
Assignment to Submarine Duty; policy, eligibility	BuPers Inst. 1540.2A
Assignment to Reserve Training Submarines; policy, eligibility	*BuPers Inst. 1306.3B
Assignment to Duty Involving Demolition of Explosives; policy, eligibility	BuPers Inst. 1320.5A
PAY, ALLOWANCES, SAVINGS, INSURANCE	
Soldiers' and Sailors' Civil Relief Act of 1940; summary of benefits under	BuPers Inst. 1760.4
Uniformed Services Contingency Option Act; options under	BuPers Inst. 1750.1A
Social-Security Benefits Due to Active Duty; summary of benefits under	BuPers Inst. 1760.B
Basic Allowances for Quarters; Policy, eligibility	BuPers Inst. 7220.12
Savings Deposits of Enlisted Personnel; policy	SecNav Inst. 7220.9
Retainer Pay Upon Transfer to the Fleet Reserve; policy, eligibility	Art. C-10321, BuPers Manual
Mortgage Insurance for Servicemen to Aid in the Construction or Purchase of Homes; policy, eligibility	SecNav Inst. 1741.4
SEPARATION AND RETIREMENT	
Separation and Civil Readjustment Information; summary	BuPers Inst. 1760.12
Review of Undesirable and Punitive Discharges; information concerning	BuPers Inst. 1626.16
Early Separation of Enlisted Personnel to Attend College	BuPers Inst. 1910.12
Retirement, Voluntary and Naval Reserve with Pay; policy, eligibility	BuPers Inst. 1820.1, BuPers Inst. 1820.2, SecNav. Inst. 1811.3A
MISCELLANEOUS	
GENERAL INTEREST	
The Navy Relief Society; services by	Art. C-9207, BuPers *Manual* BuPers Inst. 1747.1A
The American Red Cross; services by	Art. C-9207 and Art. C-1030B(7), BuPers *Manual*
Voting By Members of the Armed Forces; policy	BuPers Inst. 1742.2
Immigration and Nationality Act of 1952; alien spouses, naval personnel, information concerning	SecNav Inst. 1750.1
VA Hospitals; transfer of Naval active and retired personnel to; policy	*BuMed Inst. 6320.11
Marriage of USN and USMC Personnel Outside the United States and Within Far East Command; policy	SecNav Inst. 1752.1 SecNav Inst. 1752.2
Visas For Alien Wives and Children of Naval Personnel	*SecNav Inst. 1750.2
Participation of Enlisted Personnel in Inter-Service and International Athletic Events and Competitions; policy, eligibility	BuPers Inst. 1710.1B, BuPers Inst. 1710.2
Transportation of Dependents; policy	BuPer Inst. 4650.6A, BuPers Inst. 4650.B, SecNav Inst. 4651.1
Summary of State Bonuses	BuPers Inst. 1760.3
PROGRAMS AND OPPORTUNITIES OF PARTICULAR INTEREST TO OFFICERS	
TRAINING	
GENERAL TRAINING	
Schools and Courses	*Catalog of U. S. Navy Activities and Courses* (NavPers 91769-B) *BuPers Inst. 1500.25A
General Line School; policy, eligibility	BuPers Inst. 1520.13 BuPers Inst. 1520.43
Postgraduate Instruction; policy, eligibility	BuPers Inst. 1520.15B
Five-Year Term College Training Program; policy, eligibility	BuPers Inst. 1520.37
Completion Naval Aviation College Program for USN Officers; policy, eligibility	BuPers Inst. 1520.38
Officer Correspondence Courses; summary	Catalog of Officer Correspondence Courses (NavPers 10800-A)
SPECIALIZED TRAINING	
Flight Training (HTA); policy, eligibility	BuPers Inst. 1520.20
Underwater Demolition Training; policy, eligibility	BuPers Inst. 1520.7
Deep Sea Diving Training; policy, eligibility	BuPers Inst. 1520.4A
Training and Administration of the Naval Reserve; policy	BuPers Inst. 1001.10A
ASSIGNMENT TO SPECIAL DUTY	
Assignment to Submarine Duty; policy, eligibility	BuPers Inst. 1520.6F
Assignment to Special Weapons Program; policy, eligibility	BuPers Inst. 1331.1A
Assignment With a Navy Security Group; policy, eligibility	BuPers Inst. 1331.2A

Subject	Pertinent Directive or Authority
Assignment to Duty Involving Demolition of Explosives; policy, eligibility	BuPers Inst. 1320.5A
Assignment to Nucleor Power Program; policy, eligibility	SecNov Inst. 1000.3
Tronsfer of Officers Line-Aviotion to Line; policy, eligibility	BuPers Inst. 1210.7
APPOINTMENT	
Appointment to Ensign Limited Duty Officer; policy, eligibility	BuPers Inst. 1120.18B
Appointment of Novol Reserve Aviotors to Commissioned Grodes in Regulor Novy; policy, eligibility	BuPers Inst. 1120.14A
Appointment of Novol Reserve Medicol ond Dentol Corps Officers to Commissioned Grodes in the Regulor Novy; policy, eligibility	BuPers Inst. 1120.3C
Appointment to Commissioned Grodes, Regular Novy policy, eligibility	BuPers Inst. 1120.7B
MISCELLANEOUS	
Uniform Allowonces for Novol Reserve Officers; entitlement ond reimbursement for	BuPers Inst. 7220.14

*Note: The osterisk indicotes limited distribution to commonds concerned.

Revised Correspondence Course For Navy Chaplains Available

The officer correspondence course, *The Navy Chaplain,* has been completely revised and is now available at the Naval Correspondence Course Center. This course consists of nine assignments, and is evaluated at 18 Naval Reserve promotion and retirement points. Personnel who completed the earlier course, NavPers 10905, will receive additional credit for completing the revision, NavPers 10905-A.

Applications for enrollment should be submitted on form NavPers 992 to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, New York.

Freight Transportation and Traffic Management Course

Supply Corps officers have until 2 Apr 1956 to submit their applications for the next session of the Freight Transportation and Traffic Management Course at the U.S. Naval School Freight Transportation, Naval Supply Center, Oakland, Calif.

The course is designed to train officers for assignment to operating, technical or management billets in freight traffic management and terminal management.

Every phase of freight or cargo movement from source of supply through tidewater terminals to the ultimate consumer is covered during the course. The instruction during the nine-month course employs lectures, conferences, practical problems, tours and actual "on the job" observation and training with the last three months of the course devoted to the advanced study of freight traffic management.

Supply Corps officers, LTJG through LCDR, are eligible for the course and will be enrolled for nine months. Officers selected for the training are ordered on a permanent change-of-duty basis and are normally due for a tour of shore duty upon commencing the course.

A number of line officers will also be selected to attend the course but this will be done through administrative action in the Bureau of Naval Personnel.

Navy Hospital Patients Have Duty Option on Reenlisting

Navymen who reenlist while patients in Navy hospitals may now select a duty assignment option on the same basis as those reenlisting elsewhere. Selections of options are to be made upon release from hospitalization.

Since 1950, personnel whose enlistments expired while patients in Navy hospitals have been authorized to reenlist in the Navy, provided it was anticipated that they would be physically and otherwise qualified for full duty. BuPers Inst. 1133.9, continues this authorization and extends to hospital patient reenlistees the duty assignment options granted to others last March and September.

Commanding officers of U. S. naval hospitals and the Naval Medical Unit, Tripler Army Hospital, have been directed to state on report of physical examination for reenlistment that the member is a patient in a naval hospital or naval medical unit, and that the defect or condition for which the person is under treatment would be unlikely to hinder his performance on return to full duty.

All-Novy Cortoon Contest—
J. F. McNeil, ET1, USN

"Still, you con't help odmiring the persistence of these college men."

Correspondence Course Covers X-Ray Physics and Technique

Part of the suspended Medical Department correspondence course in Special Clinical Services (General) has now been re-issued as a four-assignment course entitled *X-Ray Physics and Technique* (NavPers 10702) This course covers the theory of X-rays, the operations of X-ray machines, and practical applications of radiographic technique to various medical problems.

The course is evaluated at 12 retirement and promotion points. It is recommended for both officer and enlisted personnel of the Medical Department. Those who completed the earlier course in Special Clinical Services (General) will not receive additional credit for this course.

Application for enrollment should be submitted on Form NavPers 992 (Rev 10-54) (with appropriate change in the "To" line) forwarded via official channels to the Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda, Md.

Safety Program Organized To Help Prevent Accidents

A safety program for off-duty Navy personnel has been organized throughout the Navy to help prevent accidents arising out of the operation of privately owned motor vehicles.

The Secretary of the Navy has directed that a motor vehicle accident prevention program be established in the Navy under the joint responsibility of the Chief of Naval Personnel and the Commandant of the Marine Corps.

While the idea for a safe driving program is not new, and there are already several safety programs in effect throughout the Navy, the Navy Traffic Safety Program will coordinate all safe driving programs on a Navy-wide basis. In this way safe driving methods that have already been successful at some activities will be available to all commands.

Commanding officers have been requested to include in their training programs a provision for instruction in safe driving directed toward developing better driving habits. To assist in this instruction the pamphlets *Safety in Driving* (NavPers 10888) and *Safety in Driving Charts* (NavPers 70131) are being distributed.

In addition, motion pictures showing accidents, traffic violations and safe driving practices are being used for instruction.

District commandants, Fleet and type commanders are responsible for the effective operation of training Program is outlined in BuPers Inst. under their command. Additional information on the Navy Traffic Safety Program is outlined in BuPers Inst. 5101.2.

Enlisted Correspondence Course Available for CD Ratings

A new Enlisted Correspondence Course, *Driver 3* (NavPers 91573-1), is now available to all enlisted personnel on active or inactive duty.

This course carries 18 retirement points and is applicable to Navymen with the rate of CD.

Application for enrollment should be made on NavPers Form 580 forwarded via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, N. Y.

WAY BACK WHEN

Navy's First Hawaiian Flight

Today, Navymen and their families casually board giant Mars flying boats at San Francisco and, 12 hours later, disembark at Hawaii. The trip is safe, comfortable and rapid.

The passengers' needs are attended by orderlies, meals are served; and if they feel like taking a nap, they recline in foam rubber seats.

It wasn't like that in the old days. It was only a little more than 30 years ago (10 Sep 1925, to be exact) that five Navy fliers in one disheveled seaplane completed the first crossing between California and Hawaii.

They made it the hard way. Though most of the trip was by air, a substantial part was sailed. The last leg was made under tow, first by a submarine (which managed to go aground in the process) and finally at the end of a line attached to a rowboat.

It was on 31 Aug 1925 that a Navy PN-9 patrol bomber, a metal-hulled twin-engined biplane flying boat headed west out of San Francisco, bound for Honolulu. On board were CDR John Rodgers (skipper and navigator); LT B. J. Connell (pilot); S. R. Pope, AP, (co-pilot); O. G. Stanz, CRM, (radioman); and W. M. Bowlin, AMM 1/C, (flight engineer).

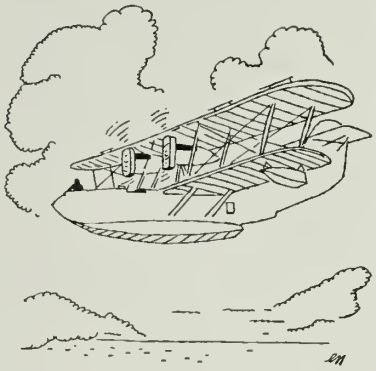
Also aboard were 1350 gallons of gasoline, stored in the plane's tanks and in five-gallon cans tucked away wherever there was storage space. To fuel the fliers there was a six-pound can of corned beef, 40 ham sandwiches, a supply of hardtack, five gallons of water, two dozen oranges, and odds and ends such as coffee and soup. Included among the stores was a small still, thoughtfully presented to CDR Rodgers by his mother as a going-away gift.

Spaced at about 200-mile intervals along the projected route were 10 ships. One of these, USS Aroostook (CM 3), carried spare fuel in case—perish the thought—the plane were to run dry along the way.

In spite of all precautions, PN-9 missed connections with *Aroostook*. After 25½ hours' flying time had drained the gas tanks and tin cans, the seaplane landed safely on the water about 200 miles from Hawaii and approximately 1900 miles from San Francisco.

All hands stood by for the rescue. It did not come for nine days. With their radio transmitting set out of commission because they had no fuel to operate the generator, they were unable to send out messages giving their position.

As soon as it was realized that the plane was down at sea, all ships in the vicinity began their search. In addition, a squadron



of destroyers, homeward bound from an Australia-New Zealand cruise was pressed into service.

Although the transmitter was inoperative, men on board the PN-6 were able to make the receiver work and thus were able to listen to reports of the ships searching for them. They were able to plot the positions of the searchers and soon realized there was no immediate hope of rescue.

Since aid could not be expected, the rugged fliers decided to rescue themselves. Ripping fabric from the lower wing panels, they improvised sails between the upper and lower wings and thus were able to log up to 50 miles travel a day. Once during their voyage a ship passed within five miles, but failed to see the windjamming seaplane.

Although PN-9 sailed within 60 miles of Oahu (the crew saw searchlights at night, and Army planes during the day), the prevailing winds made it necessary to head for the island of Kauai, lying to the northwest. By 10 September CDR Rodgers and his crew had brought the plane to within 15 miles of Nawiliwili Bay, Kauai. At nightfall they improvised a sea anchor, and planned to wait for sunrise before sailing handily into the harbor.

Using wood from the plane's wing spars, they set a signal fire inside a bucket during the darkness, and were sighted by the submarine R-4. Although it picked them up and started the two to Nawiliwili Harbor, the plane's adventures were not yet over. On the way the sub went aground. To free itself, it was necessary to cast loose the PN-9. A rowboat finally hauled the plane into port, nine days overdue.

CDR Rodgers earned his wings in 1913 and was designated Naval Aviator No. 2. USS *John Rodgers* (DD 574) was named jointly in his honor, as well as for two other Navymen, Commodore John Rogers (of the War of 1812) and Rear Admiral John Rodgers (Civil War).

There's Still Time to Apply as a Candidate in the Olympics

SINCE 1956 is the year of the XVI Olympiad, the All-Navy and Inter-Service sports programs are scheduled for double duty. Besides providing for recreation and entertainment and promoting understanding and goodwill between the men in the different branches of the armed forces, the sports program will provide an elimination process for potential Olympic athletes in certain sports.

The All-Navy and Inter-Service sports calendar for 1956 lists the championships scheduled in seven individual and four team sports. Championships that will reach the Inter-Service level of competition are basketball, boxing, golf, swimming and diving, track and field, and tennis.

All-Navy championships will be conducted in boxing, swimming and diving, wrestling, track and field, tennis, and golf. Sports which will only go to the All-Navy Eastern and All-Navy Western level include baseball, bowling, softball and basketball.

Basketball, although not listed on the All-Navy level of competition, is one sport which has been added to the Inter-Service sports schedule because of the Olympics. Outstanding individuals from the All-Navy Eastern and All-Navy Western tournaments, plus outstanding men who have submitted requests and have been selected for training, will make up the Navy squad that will play in the Inter-Service tourney.

The round-robin Inter-Service basketball tournament, slated for the latter part of this month in Louisville, Ky., will serve as the preliminary try-outs for the Olympics. The team winning this championship will be used as the nucleus for the armed forces Olympic basketball squad. Certain outstanding players from the other three teams will also be selected. The armed forces Olympic basketball squad will then compete in a tournament against the AAU and collegiate champions to determine the U. S. team to go to the Olympic Games.

Any Navy athlete, regardless of his sport, who thinks he is a potential world's champion, should make haste in submitting his request to the Bureau of Naval Personnel for consideration for training. Although time is running out, you may still submit your application in accordance with BuPers Inst. 1710.2.

Competition for women has also been scheduled under this year's sports program. Waves and Nurses are eligible to compete in the individual sports of bowling, golf, and tennis. Team sports will be conducted for women in basketball, bowling, and softball. Women's sports tournaments, which reach only to the Eastern and Western All-Navy level of competition, will be held at the same time, but separate from the men's championships.

Rules for the conduct of the various sports tournaments are about the same as last year. One big change is in baseball and basketball, where a double elimination type tournament will be held in each of these sports. Before, these sports used to be a sudden death tournament.

Boxing remains the same, with competition slated for the ten weights prescribed by the AAU and the mandatory wearing of head guards. The Bureau will specifically designate those boxing competitions (leading directly to the Olympics) in which the wearing of head guards will be waived. In all other boxing competitions headguards must be worn.

All bowling championships will be determined in five-game matches. In the team event, the title will be decided by the five highest scores rolled by the six-man team.

There will be both Open and Senior divisions in golf. The Open division will consist of 72-holes of medal play while the Senior division will be 54-holes of medal play. A Senior may elect his division but may compete in one division only. The Senior division is open only to Navymen who have reached their 45th birthday. Competition in the women's division of golf will consist of 54-holes of medal play.

Swimming and diving has been elevated to the All-Navy level of competition this year with 11 events scheduled. There are no limits on the number of events a man may

Zoo Race Nets Funds for Olympics

"Sailors Run in Zoo Race" is the headline one San Diego newspaper used in telling of the unusual method USS *Mount McKinley* (AGC 7) sailors used to raise funds for the U. S. Olympic Team. According to the BuPers Notice which announced the drive, Olympic fund donations could be collected voluntarily by any methods deemed practicable — so *McKinley's* skipper came up with an idea for a mock relay race to be run for the entertainment of Sunday crowds at San Diego's zoo.

Four booths for combined relay station-donation duty were set up. Each station was "manned" by a local beauty queen escorted by an ensign who acted as "barker," and an enlisted man who kept a record of donations on a 10-foot "thermometer." Huge Olympic Association shields, *Mount McKinley* life rings and seven-foot silhouettes of a discus thrower completed the decoration.

Runners were recruited from among AGC 7's experienced athletes; "Li'l Mo" Connolly of national tennis fame was recruited to start the first relay, and *McKinley* men were off on their mock version of the 2750-mile, 15-day marathon which will open the 1956 Olympic Games. The unusual idea's success was reflected in the check forwarded for use by the Olympic Team.

enter or on the number of individuals who may enter one event. However, competitors should be able to equal or better the standards in the different swimming events as published in BuPers Notice 1710 of 20 Dec 1955.

The same holds true in the track and field events, where established standards must be met or surpassed in order that a man be eligible to compete. There are no limits to the number of events an athlete may enter, nor is there a limit on the number of individuals who may enter any one event.

Both the men's and women's tournaments in softball will be double elimination affairs, conducted in accordance with the current Amateur Softball Association rules.

Tennis will be governed by the current USLTA rules and will be a single elimination tournament. Tennis, like golf, will have both an Open and Senior division. Men who have reached their 40th birthday are eligible to compete in the Senior division.

Here's the schedule of this year's Inter-Service and All-Navy sports events: (Asterisk indicates competition to be held for both men and women)

Other important administrative items, such as eligibility, transportation of team and individuals, finances, coaches, and augmentation, are covered in BuPers Inst. 1710.1C. Paragraph 13 of this instruction covers the publicity angle. ALL HANDS is highly interested in running the results and action pictures of the various tournaments.

Railway Furlough Rates Continue for Servicemen

You may continue to enjoy furlough fares, good for travel within the continental limits of the United States while in a leave status, until 1 Jan 1957.

The passenger-carrying railroads have agreed to continue to grant reduced round trip coach fares to all active military personnel, including cadets and midshipmen, traveling in uniform, while on written authority for leave, pass, or furlough, including liberty cards but not ID cards.

Tickets will be over the same route in both directions, good for 90 days from date of sale, and will include regular stopover and baggage privileges. Such tickets sold to U. S. military personnel will be tax-exempt. Tax exemption will not apply to tickets sold to foreign military students.

Inter-Service and All-Navy Sports Schedule

	EASTERN AND WESTERN ALL-NAVY		ALL-NAVY	INTER-SERVICE
SPORT	DATE	HOST	DATE-SITE	DATE-SITE
BOXING	9 Apr	ComOne ComEleven	16 Apr, Newport, R.I.	1st week in Oct, Camp Lejeune, N.C.
*GOLF	6 Aug	ComSix ComEleven	13 Aug, ComFive	Last week in Aug, Eglin AFB, Fla.
SWIMMING AND DIVING	NONE		16 Jul, San Diego	7-9 Aug, San Diego
TRACK AND FIELD	NONE		21 May, San Diego	19 Jun, Los Angeles (Army is host)
*TENNIS	6 Aug	ComOne ComEleven	13 Aug, Newport, R.I.	Last week in Aug, Site to be determined (Air Force is host)
WRESTLING	12 Mar	ComFive ComEleven	19 Mar, ComFive	NONE
*BASKETBALL	5 Mar	CinCLantFlt ComEleven	NONE	22-24 Mar, Louisville, Ky.
BASEBALL	10 Sep	ComFive ComTwelve	NONE	NONE
*BOWLING	12 Mar	ComFour ComThirteen	NONE	NONE
*SOFTBALL	3 Sep	ComThree ComEleven	NONE	NONE

HERE'S YOUR NAVY

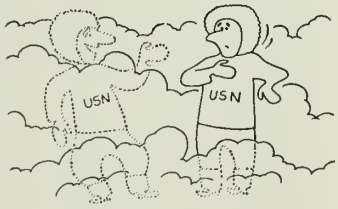
With the eyes of the rest of the Navy on them, figuratively speaking, the men and ships of Task Force 43 are now deep in the Antarctic. Their mission is to establish bases and to take preliminary steps which will help reveal the mysteries of the great land mass of snow and ice.

While there, Navymen will encounter a strange phenomenon known as the "whiteout." Called by some the "white darkness," it is easily recognized—by nothing.

Day after day, nothing can be seen but a whitish haze. There are no sha-

dows, nor is there any definition between black and white. There is no horizon. Moving objects disappear before the spectator's eyes and a man standing alongside you suddenly vanishes into thin air. At times, you can't see the snow on which you are walking.

Sledge and tractor drivers may not be able to move for days at a time until shadows reappear by which they can detect the parallel ridges which indicate the presence of crevasses. Otherwise, they might stumble blindly into an area crisscrossed with the rifts, sometimes reaching a depth



of 1000 feet, which may be death traps for the polar explorers.

No one has yet been able to give an acceptable explanation of the Antarctic whiteouts, and they will continue to be one of the biggest dangers faced by members of the Task Force during their stay on the earth's southernmost outpost.

It will also be one of the many mysteries that meteorologists will attempt to explain during their stay. Until they reach a satisfactory explanation, it will remain classified as one of Nature's impenetrable secrets — consisting of nothing.

Latest List of Ships and Service Craft by Type and Designator

Granted you have no trouble identifying your own ship, whether by silhouette, hull number or wheeze in the number three cylinder, but how about other ships of the Fleet? Who, or what, for example, is YFRN 412? And is an AB the same thing as an AW?

There have been many changes made in ships' designations since the list of ships and service craft by type and designator was published in the April 1955 issue of ALL HANDS. To bring you up to date, here's the most recent list available:

Combatant

• *Warships*

BB—Battleship
BBG—Guided Missile Capital Ship

CA—Heavy Cruiser
CAG—Guided Missile Heavy Cruiser
CB—Large Cruiser
CL—Light Cruiser
CLAA—Antiaircraft Light Cruiser
CLG—Guided Missile Light Cruiser
CBC—Large Tactical Command Ship
CLC—Tactical Command Ship
CVA—Attack Aircraft Carrier
CVE—Escort Aircraft Carrier
CVHE—Escort Helicopter Aircraft Carrier
CVL—Small Aircraft Carrier
CVS—ASW Support Aircraft Carrier
DD—Destroyer
DDC—Corvette
DDE—Escort Destroyer
DDG—Guided Missile Destroyer
DDR—Radar Picket Destroyer
DL—Frigate

DLG—Guided Missile Frigate
SS—Submarine
SSG—Guided Missile Submarine
SSK—Anti-Submarine Submarine
SSN—Nuclear Power Submarine
SSR—Radar Picket Submarine

• *Amphibious Warfare Vessels*

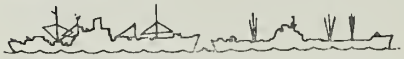
AGC—Amphibious Force Flagship
AKA—Attack Cargo Ship
APA—Attack Transport
APD—High Speed Transport
ASSA—Cargo Submarine
ASSP—Transport Submarine
CVHA—Assault Helicopter Aircraft Carrier
DEC—Control Escort Vessel
IFS—Inshore Fire Support Ship
LSSL—Support Landing Ship (Large) Mk. III
LSD—Dock Landing Ship
LSM—Medium Landing Ship
LSMR—Medium Landing Ship (Rocket)
LST—Tank Landing Ship
LSV—Vehicle Landing Ship
LSFF—Flotilla Flagship Landing Ship
LSIL—Infantry Landing Ship (Large)
LPH—Amphibious Assault Ship

• *Mine Warfare Vessels*

DM—Minelayer, Destroyer
DMS—Minesweeper, Destroyer
MCS—Mine Warfare Command & Support Ship
MHC—Minehunter, Coastal
MMF—Minelayer, Fleet
MMA—Minelayer, Auxiliary
MMC—Minelayer, Coastal
MSA—Minesweeper, Auxiliary
MSC(O)—Minesweeper, Coastal (old)
MSC—Minesweeper, Coastal (nonmagnetic)
MSF—Minesweeper, Fleet (steel hulled)
MSO—Minesweeper, Ocean (nonmagnetic)

• *Patrol Vessels*

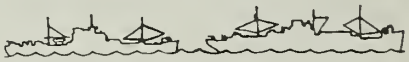
DE—Escort Vessel
DER—Radar Picket Escort Vessel
PC—Submarine Chaser (173')
PCE—Escort (180')
PCER—Rescue Escort (180')
PCS—Submarine Chaser (136')
PF—Patrol Escort



PGM—Motor Gunboat
PR—River Gunboat
PY—Yacht
SC—Submarine Chaser (110')

Auxiliary Vessels

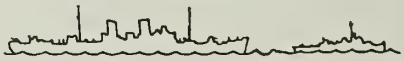
AD—Destroyer Tender
ADG—Degaussing Vessel
AE—Ammunition Ship
AF—Store Ship
AG—Miscellaneous
AGB—Icebreaker
AGP—Motor Torpedo Boat Tender
AGS—Surveying Ship
AGSC—Coastal Surveying Ship
AG(SS)—Auxiliary Submarine
AH—Hospital Ship
AK—Cargo Ship
AKD—Cargo Ship, Dock
AKL—Light Cargo Ship
AKN—Net Cargo Ship
AKS—General Stores Issue Ship
AKV—Cargo Ship and Aircraft Ferry
AN—Net Laying Ship
AO—Oiler
AOG—Gasoline Tanker
AOR—Replenishment Fleet Tanker
AP—Transport
APB—Self-propelled Barracks Ship
APC—Small Coastal Transport
AR—Repair Ship
ARB—Battle Damage Repair Ship
ARC—Cable Repairing or Laying Ship
ARG—Internal Combustion Engine Repair Ship
ARH—Heavy-hull Repair Ship
ARL—Landing Craft Repair Ship
ARS—Salvage Ship
ARSD—Salvage Lifting Vessel
ARST—Salvage Craft Tender
ARV—Aircraft Repair Ship
ARVA—Aircraft Repair Ship (Aircraft)
ARVE—Aircraft Repair Ship (Engine)
AS—Submarine Tender
ASR—Submarine Rescue Vessel
ATA—Auxiliary Ocean Tug
ATF—Fleet Ocean Tug
ATR—Rescue Ocean Tug
AV—Seaplane Tender
AVM—Guided Missile Ship
AVP—Small Seaplane Tender



AVS—Aviation Supply Ship
AW—Distilling Ship
CVU—Utility Aircraft Carrier
IX—Unclassified Miscellaneous

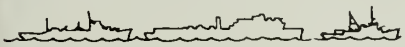
Service Craft

AB—Crane Ship
AFDB—Large Auxiliary Floating Dry Dock
AFDL—Small Auxiliary Floating Dry Dock
AFDM—Medium Auxiliary Floating Dry Dock
APL—Barracks Ship (non-self-propelled)
ARD—Auxiliary Floating Dry Dock
AVC—Large Catapult Lighter
LCU—Utility Landing Craft
MSB—Mine Sweeping Boat
MSI—Minesweeper, Inshore
PT—Motor Torpedo Boat
PYC—Coastal Yacht
SST—Target and Training Submarine
X—Submersible Craft



YAG—Miscellaneous Auxiliary
YAGR—Ocean Radar Station Ship
YC—Open Lighter
YCF—Car Float
YCK—Open Cargo Lighter
YCV—Aircraft Transportation Lighter
YD—Floating Derrick
YDT—Diving Tender
YF—Covered Lighter (self-propelled)
YFB—Ferryboat or Launch
YFD—Yard Floating Dry Dock
YFN—Covered Lighter (non-self-propelled)
YFNB—Large Covered Lighter
YFND—Covered Lighter (for use with dry docks)
YFNG—Covered Lighter (special purpose)
YFNX—Lighter (special purpose)
YFP—Floating Power Barge

YFR—Refrigerated Covered Lighter (self-propelled)
YFRN—Refrigerated Covered Lighter (non-self-propelled)
YFRT—Covered Lighter (Range Tender)
YFT—Torpedo Transportation Lighter
YG—Garbage Lighter (self-propelled)
YGN—Garbage Lighter (non-self-propelled)
YHB—House Boat
YM—Dredge
YMP—Motor Mine Planter
YMS—Auxiliary Motor Mine Sweeper
YNG—Gate Vessel
YO—Fuel Oil Barge (self-propelled)
YOG—Gasoline Barge (self-propelled)
YOGN—Gasoline Barge (non-self-propelled)
YON—Fuel Oil Barge (non-self-propelled)
YOS—Oil Storage Barge
YP—Patrol Vessel
YPD—Floating Pile Driver
YPK—Pontoon Stowage Barge
YR—Floating Workshop
YRB—Submarine Repair and Berthing Barge
YRBM—Submarine Repair, Berthing and Messing Barge
YRDH—Floating Dry Dock Workshop (Hull)
YRDM—Floating Dry Dock Workshop (Mach)
YRL—Covered Lighter (Repair)
YSD—Seaplane Wrecking Derrick
YSR—Sludge Removal Barge



YTB—Large Harbor Tug
YTL—Small Harbor Tug
YTM—Medium Harbor Tug
YTT—Torpedo Testing Barge
YV—Drone Aircraft Catapult Control Craft
YVC—Catapult Lighter
YW—Water Barge (self-propelled)
YWN—Water Barge (non-self-propelled)

(NOTE: Where the identifying classification and hull number of a ship or service craft is preceded by the letter "E" it indicates that the particular vessel or craft is "Experimental." Similarly, the prefix "T" indicates that the vessel is assigned to MSTS (Military Sea Transportation Service).

Course for Women Line Officers Started at Postgraduate School

A 20-week General Line School course of instruction for career women officers of the line has been instituted at the U.S. Naval Postgraduate School, Monterey, Calif.

The new course will be aimed at women officers of the line who have completed from five to seven years of commissioned service with as many women officers being assigned to the school as is feasible.

The first class started on 6 Feb 1955, and following classes will commence about June and September this year with a firm calendar being established before 1957.

All-Navy Cartoon Contest—
P. B. Kincade, PNC, USN.

"This is my cousin Harvey . . . He's on a PT boat."

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carrried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instruction and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 1 — Refers to administrative details of the servicewide examinations for advancement of enlisted personnel held in February.

No. 2 — Announces change of pay and allowances for travel time currently authorized to personnel upon release from active duty upon detachment from last duty station. Paragraphs 44230-3 and 4 of *Navy Comptrollers Manual* is reference.

Instructions

No. 1120.22A — Concerns procedures for the administration of active duty agreements for Naval Reserve officers and invites applications from eligible officers.

No. 1520.47 — Announces the establishment of a 20-week course of instruction for eligible women officers at the General Line School.

No. 1743.4 — Prescribes the lecture and discussion materials to be used by the Chaplain Corps when conducting character education group instruction.

No. 5101.2—Establishes and implements an organized safety program for off-duty military personnel throughout the Navy, directed toward the prevention of accidents arising out of the operation of privately owned motor vehicles.

Notices

No. 1416 (29 Dec)—Clarified bibliography listed for professional examinations in subjects of Military Justice, Investigations and Claims.

No. 1747 (30 Dec)—Clarified the submission of requests for Navy Relief assistance by Navy dependents when the service member is on duty overseas and his family is located in a remote area of the United States. Also listed Naval Relief Auxiliaries.

No. 1760 (30 Dec)—Announced additional information regarding provisions of the Indiana State bonus and added states not previously listed that are still making World War II bonus payments.

No. 1210 (5 Jan)—Announced changes in officer designator codes.

No. 1760 (16 Jan)—Announced the distribution of "Referral Directory for Navy Veterans' Counselors" NavPers 15832, revised Dec. 1955.

No. 1742 (16 Jan)—Announced voting information for members of the Armed Forces to obtain ballots and vote in primary elections held in Louisiana, Minnesota and New Hampshire.

No. 1133 (17 Jan)—Informed commands of the location of all Navy Career Appraisal Teams and announced steps to be taken to promote maximum use of existing teams.

No. 1520 (17 Jan)—Promulgated information and procedure regarding participation of commissioned naval and Marine Corps officers and midshipmen of the U. S. Naval Academy (classes of 1956 and 1957) in the annual Rhodes Scholarship competition.

No. 1520 (18 Jan)—Invited applications from Supply Corps officers for assignment to the Freight Transportation and Traffic Management course at Naval Supply Center, Oakland, Calif.

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH is on page 45.

1. (b) F4D *Skyray*.
2. (a) Delta.
3. (a) Air controlman.
4. (b) 1948.
5. (c) TBM *Avenger*.
6. (b) Torpedo bomber.

Navy's Own Museum Tells Long Story of the Sea Service

Naval historians and all those who are interested in the great past of the sea service had their wishes fulfilled when the Truxtun-Decatur Naval Museum first opened in Washington, D. C. In the five and a half years since the day it started operations, back in May 1950, Truxtun-Decatur has been a focal point for Navymen, civilians, students and visitors of all walks of life who have an interest in the Navy and American history.

The museum, at 1610 H Street, N.W., has held a dozen historical exhibitions. Visitors have seen weapons and ships, uniforms and charts, books and models—all part of the collection, or loaned by Naval-minded citizens for purposes of showing others the part the Navy has played in the history of our country.

The latest exhibition is a "Pageant of Naval History." Its purpose, in the words of RADM John B. Heffernan, USN (Ret.), Director of Naval History, is "to tell the story of the United States Navy from 1775 to 1955."

The "Pageant of Naval History" had its debut before an eminent group of viewers, including Fleet Admiral William D. Leahy, President of the Naval Historical Foundation, Admiral Arleigh A. Burke, Chief of Naval Operations, and Commodore Dudley W. Knox.

Truxtun-Decatur Naval Museum, fast becoming a mecca for Navymen who visit the nation's capital, is open from noon to 1700 all days except Mondays, and on Saturdays opens at 1030.

The Truxtun-Decatur Naval Museum is housed on the estate of the historical Decatur House, owned by Mrs. Truxtun Beale. The museum is in a former carriage house, leased to the Naval Historical Foundation for 50 years.

If you have wondered about the accuracy of ALL HANDS illustrations, we'll let you in on a secret. Our artists very often go over to Truxton-Decatur to sketch the "real thing."

Choice Shore Billets Available; Shortages for Certain Rates Exist in Many Stateside Areas

Some of the finest shore duty billets in the Navy are going begging because not enough men are requesting duty in areas where they have not previously been stationed. Qualified Fleet sailors are urged to submit their shore duty requests for assignment to areas where their services are needed so that activities in these areas will be staffed with men who desire that particular type of duty.

If you are already on the BuPers Shore Duty Eligibility List and if the list is not moving as fast as you would like, you can get ashore faster by changing your duty preference to an area where a shortage in your rating exists. This can be done by submitting a new shore duty request card (NavPers 2416) marked "Corrected Card" that indicates your new choices.

Eligible enlisted personnel who request shore duty in geographical areas where vacancies exist for their rates may be ordered ashore within a few months after their shore duty requests are processed by BuPers.

Commissarymen first class with job code classifications of "Supervisor" should indicate a secondary code on their cards. This should be their earlier specialty as either cook, butcher, baker, etc. There are few shore billets for CS1 Supervisors, and many are being detailed according to their earlier specialty.

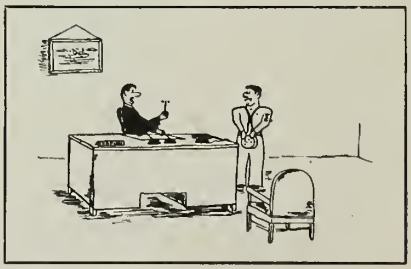
The best shore duty opportunities are currently in the Fifth Naval District, which includes Virginia, Maryland, West Virginia and Kentucky; the Sixth Naval District which covers North Carolina, South Carolina, Tennessee, Georgia, Alabama, Mississippi and Florida; and in the Eighth Naval District, which includes Texas, Arkansas, Louisiana, Oklahoma and New Mexico. Other naval districts have limited openings.

If you are eligible, the fastest way to get ashore is to indicate that you will accept duty "anywhere in U.S." on your shore duty request card.

Here's a list of the geographical areas where vacancies for the indicated rates currently exist:

RATE	DISTRICTS WHERE VACANCIES EXIST
QMC	6
RD2	6, 8, 11, 12
TMC	6, 9
TM3	1, 13
FT2	5, 6, 8
MNC	1, 4, 6
MN1	1, 3, 5, 13
MN2	1, 5
MN3	5, 13
MNSN	12, PRNC
ET2	5, 6, PRNC
ET3	1, 5, 6, 11, PRNC
OMC	9
TE3	11
RM3	11, 12
RMSN	5, 11, PRNC
YN3	1, 5, 6, 11, 12, PRNC
YNSN	3, 8, 9, PRNC
PNC	5, 8, 9, 11
PN1	8, 9, PRNC
PN2	11
PN3	5, 8, 11, 12, 13, PRNC
DK3	5
CSC	8
CS3 (Cook)	1, 5, 11
CS2 (Butcher)	1, 3, 5, 6, 11, 12, 13, PRNC
CS3 (Butcher)	1, 4, 5, 6, 9, 11, 12, PRNC
JO3	5, 6, 8, 9, 11, PRNC
DM2	5, 6, 8, 9, 11, PRNC
DM3	5, PRNC
MM2	6, 11, 12, PRNC
ENC	PRNC
MR2	5, 6, 8, 9, 11, 12, 13, PRNC
EMC	1, 6, 8, 11, 12, PRNC
EM1	6
EM2	5, 6, 11
EM3	5, 12, 13, PRNC
IC1	6, 8
IC2	5, 6, 11, 12, 13
IC3	8
MEC	8, 11
ADC	PRNC
AD3	PRNC
AL3	5, 12
ALAN	4, 5, 9, 11
AM3	5, 8, PRNC
AMAN	6, 8, 11, PRNC
PRC, PR2, PR3	6, 8
AK2	1, 11, PRNC
AK3	3
PH1	5
PH2	11
PH3	4, PRNC
PHAN	PRNC

All-Navy Cartoon Contest — W. R. Maul, CTSN, USN.



"Well Dutton, I'll see what I can do about getting you a gun with a louder 'Boom!' than Johnson's."

BOOKS: PLENTY OF SALT FLAVORS THIS MONTH'S SELECTION

A BLUE-WATER SAILOR, Cyrus L. Day is a professor of English who knows the sea and salty subjects. In his ***Art of Knotting and Splicing,*** published by the U. S. Naval Institute, he has succeeded in bringing to life a subject which, in less skilled hands, has frequently created more indifference than interest. Every Navyman who is fortunate enough to find a copy in his ship or station library will thoroughly enjoy this handsome and authentic book on one of man's most ancient arts.

In this second edition (the first was published by Dodd, Mead & Co. in 1947 and followed *Sailor's Knots,* published in 1935), the Introduction consists of a readable and entertaining history and folklore of knots. Their use in ancient medicine, the charms and taboos associated with them, and their value in primitive arithmetic and communications are described. Mr. Day brings together briefly the essential conclusions of careful scientific research on the strength and security of knots and provides concise definitions of the terms related to the art, and explains the use of the various tools common in rope work.

Then, for some 200 pages, he leads you on from the most elementary loop through the most complex Turk's-head. No matter what your rate, you'll find yourself unconsciously reaching for the handiest piece of line so that you, too, can match your skill against Mr. Day's concise explanations and detailed and accurate photographs.

Another volume which has been selected by the Bureau of Naval Personnel library staff for limited circulation to those larger libraries and activities which require the book in their professional work is Jane's ***All the World's Aircraft, 1955-56.*** Emphasis in this new edition is on gas turbine power and guided missiles.

The present edition, which covers both military and commercial aircraft, contains more than 1000 photographs and line drawings and 410 pages of text, which is 30 pages longer than the preceding edition. The section covering military and commercial aircraft contains 282 pages, has 724 illustrations, of which more than one-half are new. American aircraft occupies 108 of these pages with 276 illustrations, of which 70 per cent are new. Twenty-nine countries are represented in this portion of the book.

Other sections include markings of the air forces of the world, a list of official world records and considerable commercial data. A generous portion of the book is devoted to information about gas turbine engines and piston engines, and there is a brief section on the lighter-than-air craft of the U. S. Navy.

Enough of technical books, however readable. An approach which is markedly different than the usual treatment of the Revolutionary War may be found in Helen Augur's ***Secret War of Independence.*** Instead of telling about Paul Revere's ride and Washington's winter at Valley Forge, she presents the thesis that the backstage war of diplomacy, rumor, dummy corporations, double-dealing, secret agents and smear campaigns was as deadly and vital as the more overt military war.

Benjamin Franklin was, according to Miss Augur, the hero emerging in this gloryless war. He connived at the seizure of an English packet in order to drive England into war at the wrong time. With psychological method and deliberate military use of French ports, he won the support of France, Spain and Holland; his genius in using a private export firm as a front netted the Colonial cause a sizeable fortune.

Franklin's second in command was Silas Deane who, like the economic wizard Robert Morris, emerges as a new concept of the Revolutionary hero. Into this three-man cabinet of skullduggery was thrust Arthur Lee whose most trusted secretaries were invariably, strangely enough, in the pay of King George.

The author portrays Arthur Lee as one of the villains of the Revolution. He was a member of a certain group that actively sought the ruin of leaders such as Washington and Jefferson and in doing so, caused great injury to the cause of independence.

This is one of the books which leads you to believe that truth can not only be stranger than fiction but much more exciting. Rich in odd and unexpected information, it makes enjoyable reading.

However, fiction also has its virtues, many of which are well illustrated in ***The Three Legions*** by Gregory Solon. The Roman legions were trained to the highest peak of military proficiency but they had one fatal weakness—they were trained only for fighting on their own terms and they had to win. They couldn't take it when they were on the losing side.

Three Legions is an unusual story of defeat—perhaps the first major Roman defeat. It started when the Germans forced a renewal of the border wars at the instigation of Arminius, who had been sent to Rome to be trained, who hated and admired Rome and all its works, and who trained German mercenaries so that he might turn them against the Romans when the time came.

It is his story, but it is also the story of the Roman legions and the men who made them out on the front line of conquest, arrogantly sure that any town was theirs for the taking. It is primarily a story of the legions' men, and their adversaries.

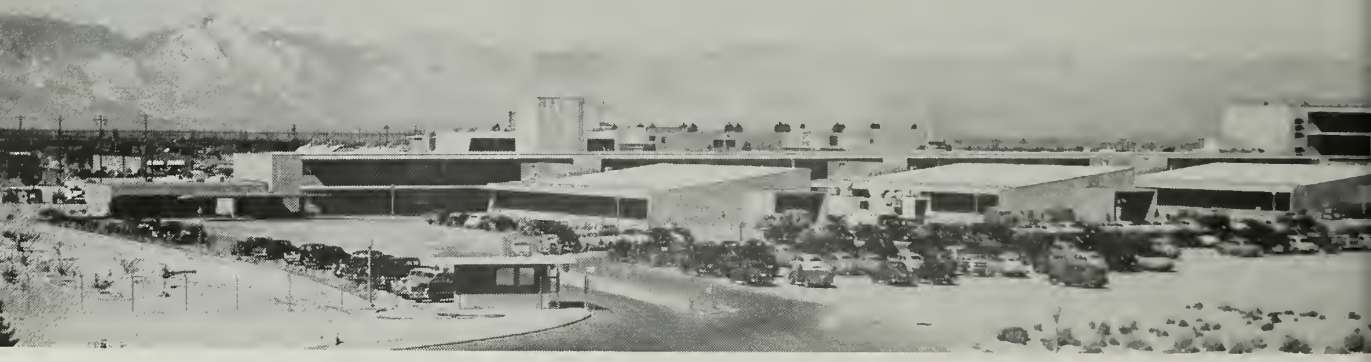
SONGS OF THE SEA

Our Boatswain

Ben Backstay was our boatswain,
A very merry boy,
For no one half so merrily
Could pipe all hands ahoy,
And when unto his summons
We did not well attend
No lad than he more merrily,
Could handle the rope's end.

CHINA LAKE

navy in the desert is guided missile laboratory



"IN THE GUIDED MISSILES FIELD the Navy is just now crossing the threshold into a field which promises to revolutionize navies as much as did the discovery of gunpowder." — Secretary of the Navy Charles S. Thomas. This is the story of NOTS China Lake, which has performed and will continue to perform a major role in the development of these weapons of the future.

A land of shimmering moon mirages, burning sands, broken hills and winding passes. Distant twisting trails once followed by the determined early explorers and settlers along the floor of the deadly Mojave and Indian Wells Valley. Long and slow shadows stretching lazily from the towering peaks of the high Sierra Nevadas. An area of mystery and challenge disturbed only by the pounding of the hooves of wild horses.

THAT WAS THE SCENE IN 1942. Today, a traveller at China Lake would find a modern, trim and prosperous community of more than 10,000 people. Trees and lawns have appeared like magic within these few years, spreading an emerald carpet of green in the midst of the desert vastness.

Known officially as the U. S. Naval Ordnance Test Station (and informally as NOTS), China Lake is the Navy's largest ordnance research and development center. Work at this permanent field station of the Bureau of Ordnance provides the Navy and other fighting forces of this country with rockets, guided missiles, torpedoes and aircraft fire-control systems.

Civilian scientists and engineers originate ideas on new weapons and carry these ideas through the development cycle to the completion of weapons ready for mass production.

Military personnel provide operational know-how and bring to the attention of the Station the needs of the Fleet. This civilian-military team of some 6300 individuals is concerned not only with immediate requirements but also with weapon systems required five and 10 years from now.

NOTS is located in a number of different physical locations. The main facility at China Lake itself, covers over 1000 square miles, and is 155 miles northeast of Los Angeles in the northwestern part of the Mojave Desert. Some of the more important Station resources in this area are facilities for rocket research, development and pilot production in both the solid- and liquid-propellant fields; facilities for warhead and high-explosives research; intensive test ranges and test tracks; facilities for the development and evaluation of aircraft fire-control systems; networks of range instrumentation; data-assessment laboratories; a laboratory for providing aeroballistics data on gun-launched rocket models; a large-scale computing installation for involved computations in ballistic, chemistry,

This unclassified material has been made available to ALL HANDS through the courtesy of the editors of "Rocketeer" and the staff of the U. S. Naval Ordnance Test Station, China Lake, Calif.

and statistical studies; engineering facilities and machine shops; an all-weather test laboratory for testing ordnance items under controlled temperature and humidity conditions; a materials testing laboratory; a major air facility for providing aircraft services for development and evaluation test operations; and research laboratories equipped for investigations in the fields of chemistry, ballistics, physics and mathematics.

A few miles southeast of the main Station area is a 750-square-mile tract known as the Mojave B Range, which is used for special aircraft-rocket and gunnery firings. This area also includes the Randsburgs Wash Projectile Range, which is used for rocket- and projectile-fuze tests.

In the vicinity of Pasadena, Calif., there are several NOTS facilities known collectively as the Pasadena Annex. This is the operational center for NOTS in underwater ordnance work and is also a convenient liaison point between NOTS and industrial and scientific concerns in the greater Los Angeles area. Major parts of the Pasadena Annex include the Foothill Plant in Pasadena, which is the headquarters and chief work area for the Annex; the Morris Dam Test Range, near Azusa, which is used for torpedo water-entry and underwater-trajectory studies; and specialized facilities at Long Beach and San Clemente Island for sea range tests.

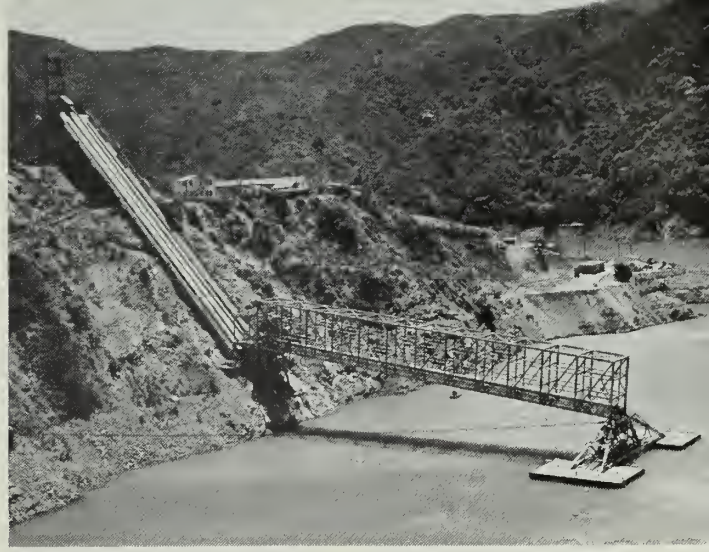
In spite of this imposing list of physical facilities, the most important asset of China Lake is its people. Men — and women — on the weapon-development team represent many different professions and trades, particularly in the scientific and engineering fields. They are specialists working together as a team that can focus its effort on difficult weapon development problems and can come up with answers needed by the military forces.

A factor of particular significance in the China Lake philosophy of operation is the importance of the individual. It is a place where ideas count, and ideas are generated best by individuals who are encouraged to use their initiative and are given opportunities to develop themselves along the lines of their individual specialties.

Before there can be new weapons there must be new ideas or new approaches to ordnance problems. The main sources of these ideas at China Lake are exploratory research programs in physics, chemistry, mathematics and ballistics. In addition, there are applied research programs aimed at improving warheads, explosives and other weapon components.

Research center of the Station is contained in Michelson Laboratory, one of the largest and best-equipped building of its kind in the world. Floor space at Michelson is measured in acres, not square feet. The completely air-conditioned concrete building with its nearly 10 acres of floor space provides the room and the specialized facilities necessary for what is probably the largest and most complete group of scientists and engineers assembled in one place and devoting their entire efforts to weapon research, development, and testing.

Construction of the building was started early in 1944. Portions were ready for occupancy early in 1947, and the building was formally dedicated on 8 May 1948. It was named after Dr. Albert Abraham Michelson (1852-1931), a graduate of the U. S. Naval Academy and America's first winner of the Nobel Prize for Physics (1907). The building contains a museum housing some of Dr. Michelson's equipment used in his work in measurements relating to the interference of light and the speed of light.

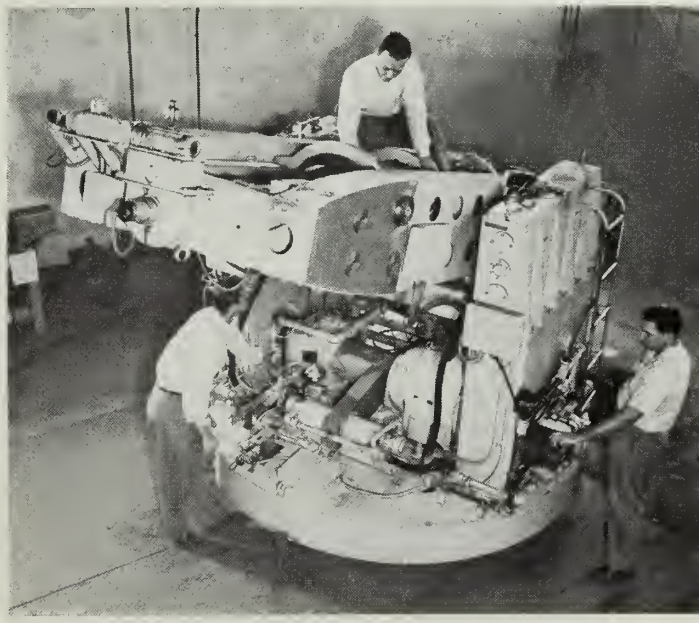


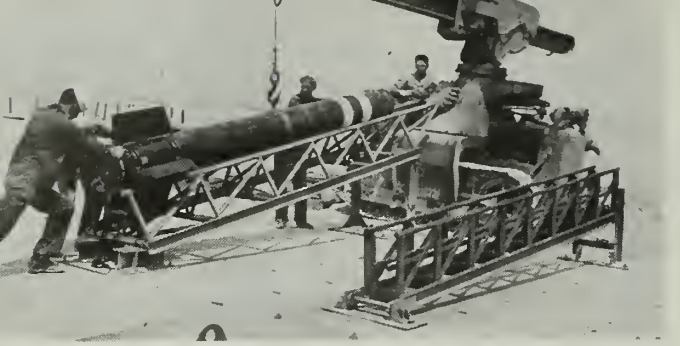
RESEMBLING A TOBOGGAN slide, the variable-angle launcher at Morris Dam (lake) tests missile's water entry.

The laboratory is built around a main corridor two stories high and 762 feet long, with eight one-story wings branching off this main corridor. Costing $8,000,000, the laboratory houses approximately $5,000,000 worth of shop, laboratory, and other technical facilities.

The entire building, including the roof, is constructed of concrete, and is earthquake resistant. This structure provides both the office and laboratory space and the physical equipment necessary for much of the research, development, and test evaluation work. Here the Re-

HYDRODYNAMIC SIMULATOR mechanically duplicates sea conditions torpedoes encounter, and records results.





SAILORS LOAD rocket launcher in 'old days' of '45. *Right:* Strange looking gear was target car for cross-wind testing.

search Department has its physics and chemistry laboratories where pure and applied research is carried on in fields such as aerophysics, combustion, gas dynamics, and physical chemistry. Here, also, are the offices and laboratories of the Rocket Department where the work centers about the design and development of rockets, propellants, rocket components, launchers special instrumentation, and miscellaneous items of ordnance equipment.

Michelson Laboratory has one of the largest heat-treat furnaces installed west of the Mississippi River. There is a deep freeze machine for sub-zero treatment of metals at −120°F. There are furnaces for various heat treating operations up to 2500°F. There are gas converters for producing gases to supply the proper type of protective atmosphere in the various heat-treat furnaces to prevent oxidation and decarburization. Included is a small foundry engaged in experimental production, methods development, and foundational research in casting methods. Also, there is a plating shop which is equipped to perform all of the usual production and experimental plating operations on pieces up to 3′ x 3′ x 2′.

A HIGHLY DIVERSIFIED MACHINE SHOP is a virtually self-sufficient facility within Michelson. It has some 185 machine tools of all types including lathes, milling machines, shapers and unusual installations such as a 400,000-pound hydraulic testing machine for tension, compression, and bending tests of test specimens or structural parts. Nearby is a room with two-foot thick concrete walls covered with ¼-inch of lead which houses three X-ray machines including one of 1,000,000 volts, capable of penetrating eight inches of steel. The door to the X-ray room is constructed in the same way as the walls and weighs 84,000 pounds.

'SIERRA SAM' is the name of this life sized dummy being lowered into cockpit of rocket sled for supersonic run.

The Engineering Department operates an altitude testing chamber at Michelson which can simulate a climb from sea level to 50,000 feet altitude in five minutes and dive back to sea level conditions in 33 seconds.

The "data assessment" facilities used by the Aviation Ordnance and Test Departments make possible the accurate assessment of the huge quantities of data collected on the various Station ranges. There are facilities for interpreting photographic and electronic records and a series of photographic laboratories which each year process over 2,750,000 feet of motion picture and film records and make more than 200,000 still photographic prints.

Michelson Laboratory also houses other facilities used by all of the technical departments at NOTS. These include a technical library and elaborate electronic computing equipment. The technical library contains 20,000 books and bound volumes, 75,000 technical reports, and subscribes to 450 technical journals. The computing equipment includes a high-speed, high-capacity electronic digital calculator.

SNORT IS THE SHORT NAME for the Supersonic Naval Ordnance Research Track at NOTS China Lake. The vehicles that travel this railroad, slightly more than four miles long, are rocket-powered sleds that speed down the track at over 1,000 miles per hour.

Built to bridge the gap between wind-tunnel and free-flight testing, SNORT enables researchers to test and recover full-scale missiles, rockets, airborne launchers, and aircraft components.

In operation, an item to be tested is mounted on a rocket-powered sled. The rockets are ignited, and depending upon the type of test being conducted, the sled may reach a speed as high as 3500 feet per second, quick enough to allow it to travel at this speed for over four seconds and still have 10,000 feet of track left in which to stop. A finger protruding from the bottom of the sled hits a 10,000-foot long graduated-depth trough of water between the rails, and rapidly brings the sled to a stop.

SNORT can be used for almost all types of track testing that require heavy carriage weights or high acceleration and velocity. For example, it is possible to

test rockets, guided missiles, full-scale airplanes, or their components under conditions approximating free flight into the supersonic range. Aeroballistic tests can be made of projectiles or rockets fired or launched from the moving track carriage under simulated flight conditions.

Also, it is possible to determine aircraft damage caused by impact at high speeds into a stationary target, artificial weather, or gunfire, and to test components, such as aircraft pilot seats, parachutes, or ordnance items.

During the time that a test vehicle takes to complete its run down the track a wide variety of photographic and electronic instruments collect the data needed to analyze the performance of the item being tested. The interpretation of this data provides the information necessary to design and perfect a wide range of rockets, missiles, fire-control systems, and components of aircraft flying faster than the speed of sound.

NO SMOKING—Chemists work in typical lab at China Lake to develop and improve explosives in war heads.

China Lake itself, home town for most employees of the Naval Ordnance Test Station, is an attractive modern community with many unique characteristics. Its population of over 10,000 makes it one of the largest towns of the Mojave Desert, yet it is one of the least known. It is a federal community established and maintained by the United States Government. The average age of its residents is lower than most towns because the community itself is young. The atmosphere is much like that of a college town because of the high percentage of residents with university degrees.

In other respects, China Lake is similar to other communities of its size. Its physical appearance is much the same; its residents join clubs, participate in civic enterprises, and amuse themselves as people do anywhere. There is a complete shopping center, including a supermarket-type commissary store, Navy Exchange, theater, library, telegraph office, bank, post office, barber shop, laundry, dry cleaners, telephone exchange, and eating establishments.

A community chapel is used by different religious denominations for church, Sunday School, and other religious services. The public-school system, covering kindergarten through high school, is among the best in California.

Evening classes for adults are particularly popular and provide educational opportunities in a wide variety of fields at both high-school and college levels. A graduate program in engineering and science subjects is offered by the University of California at Los Angeles.

Situated in a year-round vacationland of stark contrasts — ranging from historic Death Valley to the awe-inspiring mountain retreats in the high Sierras — China Lake is a sun-worshipper's paradise in a region romantically linked with the lusty sagas of the West.

Legends and tall tales were born in the exciting surrounding of Indian Wells Valley, that once saw the painful treks of determined emigrant trains seeking a short-cut to the California gold fields.

Connotations of the word "desert" have changed since the Jayhawker Party struggled across this country 100 years ago. The region has become a vacationland, the scene of dude ranches and more pretentious resorts.

People are drawn to the desert by the genial warmth of winter days and the cool evenings throughout the year. The air is clear, dry, and exhilarating.

Newcomers are surprised to learn that this particular desert teems with bird, animal, and vegetable life. In the spring it is dotted with flowers. City dwellers stream out to enjoy the spectacle and desert dwellers hold flower shows. Apart from its strange and exciting surroundings and its challenging dedication to research, China Lake is an exceptional place. Its residents enjoy the elbow room, the community associations, and the lower living costs of a small town.

That's NOTS today — working to make much of the equipment you use more effective, developing safeguards to protect the individual, and helping to bring greater power and longer range to the Navy.

ROCKET SLED ROARS down Supersonic Naval Ordnance Research Track at China Lake during a test run.

TAFFRAIL TALK

During the floods in Mexico last year a young mother who was being evacuated in a Navy helicopter from HTU-1 at Ellyson Field, Pensacola, Fla., gave birth to what may literally be described as a "bouncing" baby boy.

Lieutenant John E. Gregory, Jr., USN, was flying a group of Mexicans to higher ground when one of the expectant mothers gave birth to a healthy baby boy during the flight.

For his role in piloting the "stork special" from Tampico to maternity, LT Gregory received a special award from the com-

pany that built the helicopter. He received a model of the type he was flying at the time of the unusual event. The model bears his name and an appropriate insigne—a big white stork has been painted on it to commemorate the event.

★ ★ ★

Air Development Squadron two of NAS Chincoteague, Va., can only regard the claim made in these columns (May 1955) by VP-29 regarding the wearing of gold rating badges with a certain amount of amused tolerance. A very nice record sniffs VX-2, and certainly worthy of merit.

But, says their CO, currently 27 CPOs are assigned to VX-2, and all are entitled to wear gold rating badges. They have a cumulative total of 472½ years of continuous service, which works out to an average of 17½ years per man.

In addition, eight of the VX-2 chiefs are Aviation Pilots who have flown a cumulative total of 27,708 hours in various types of aircraft, an average of 3463.4 hours per pilot.

With a figurative flexing of its biceps, VX-2 invites any other squadron to even come close to that mark.

★ ★ ★

Here's further evidence that Navy recruiters have a confusing, as well as a sometimes difficult, life.

When Tonsillitis Jackson of USS *Russell County* (LST 1090) appeared for *his* reenlistment, he was heartily welcomed until he received his customary physical checkup, when he was rejected.

Your guess is right. The diagnosis was tonsillitis. Prognosis, tonsillectomy and another six-year hitch.

Now, the recruiters are regarding Tonsillitis' younger brother with some apprehension. His name? Meningitis.

★ ★ ★

Getting tired of the usual excuses for being overleave? Joseph J. Quinn, EM1, of Great Lakes, reported he was two hours late because he was bitten by a lion. He has a doctor's certificate to prove it.

The All Hands Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 23 Jun 1955, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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Distribution: By Section B-3203 of the Bureau of Naval Personnel Manual the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

In most instances, the circulation of the magazine has been established in accordance with complement and on board count statistics in the Bureau, on the basis of one copy for each 10 officers and enlisted personnel. Because intra-activity shifts affect the Bureau's statistics, and because organization of some activities may require more copies than normally indicated to effect thorough distribution to all hands, the Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the numbers of copies required; requests received by the 20th of the month can be effected with the succeeding issues.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Requests from Marine Corps activities should be addressed to the Commandant.

REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin. The letters "NDB" used as a reference, indicate the official Navy Department Bulletin.

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

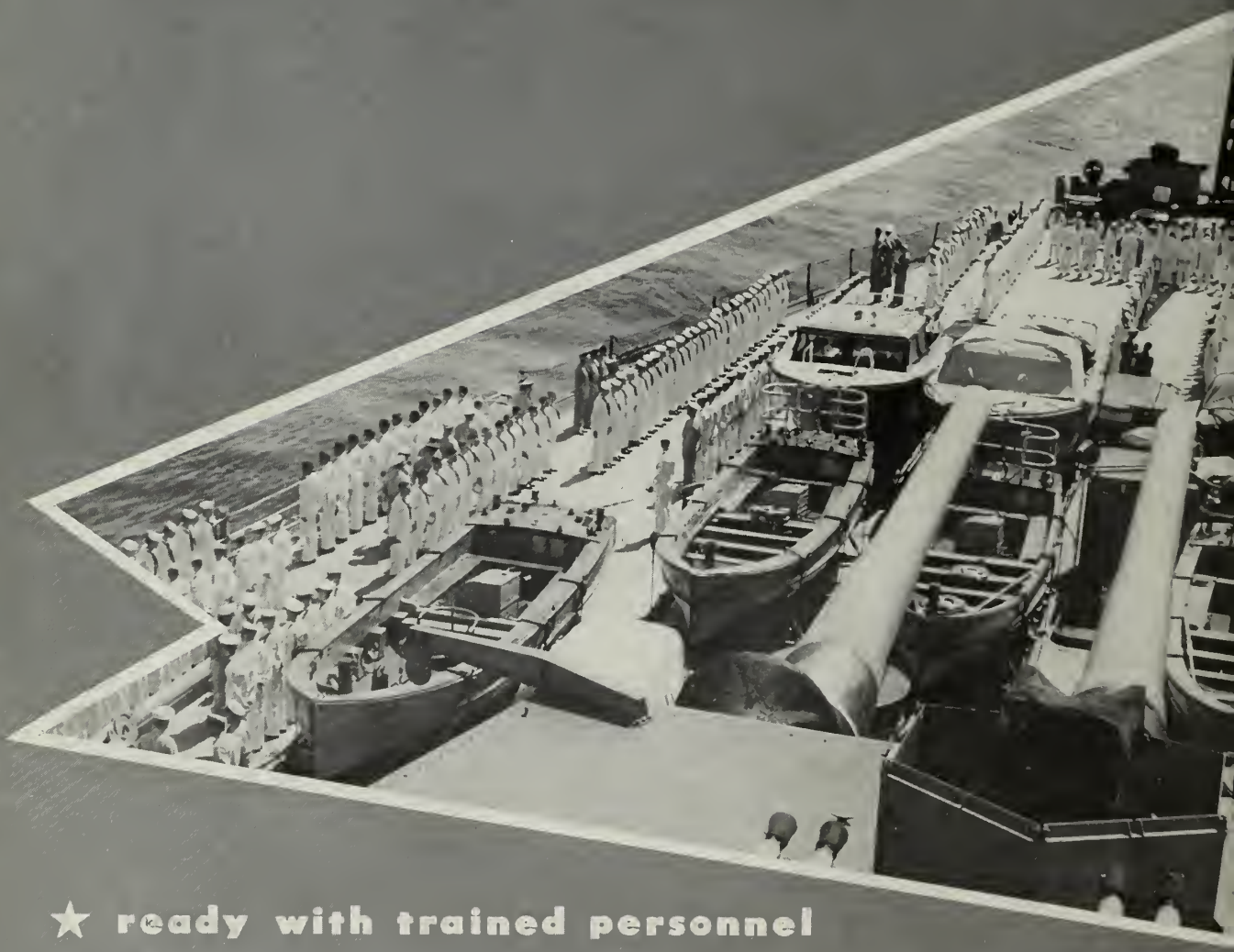
The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

"THE NAVY WILL ALWAYS BE READY"

Admiral Arleigh A. Burke
Chief of Naval Operations



★ ready with trained personnel

★ ready with equipment

★ ready for any emergency

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

UNIV. OF FLORIDA
APR 9 1956
SOCIAL SCIENCES

NUCLEAR NAVY

This magazine is intended for 10 readers. All should see it as soon as possible. PASS THIS COPY ALONG

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APRIL 1956

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

APRIL 1956 NavPers-O NUMBER 470

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• **FRONT COVER: BIG SWEPT-DOWN BOW of Navy's nuclear powered *USS Nautilus* (SSN 571) has already plowed through 29,000 miles of ocean. Talker on forward deck gives preparatory orders to get underway.**

• **AT LEFT: WITH THEIR MOUTHS OPEN—like Jonah's whale—utility landing craft are lined up at their float aboard U.S. Fleet Activities, Yokosuka, Japan. They're assigned to LCU Squadron 1, Division 12.**

• **CREDITS: All Photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated. Cover photo and pictures of personnel of *USS Nautilus* (SSN 571) by John J. Krawczyk, FT1, USN. Nuclear Power School photos are by Walter E. Zesk, J01, USN.**

NUCLEAR SNOW JOB — Crew members of USS *Nautilus* (SSN 571) gather topside near the bow of their famous sub to

School for Navy's Nuclear

THE ATOMIC AGE NAVY is here, and nowhere in the Navy is that fact more pronounced than in New London, Conn., headquarters of the Atlantic Fleet Submarine Force, and at present the home of USS *Nautilus* (SSN-571), the world's first nuclear powered submarine.

While *Nautilus,* which in a short space of time has become even more famous than the "Mighty Mo" or the equally famous USS *Lexington* (CVA 16) of World War II, is at present the most talked-of example of advance along nuclear lines, there is another and equally important first in operation at New London—the first nuclear power school at a naval base.

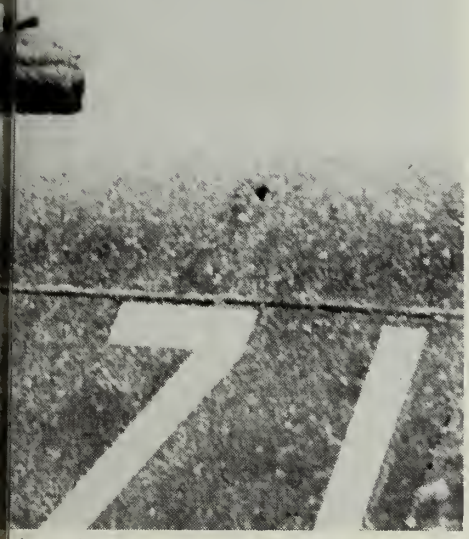
Until the school opened in January of this year, Navymen entering this new and expanding field, received their training at two Atomic Energy Commission establishments under the supervision of civilians.

Now the Navy school, located in the middle of the Submarine Base at New London, is proceeding under a full head of steam. At present, 14 enlisted students and six officers are undergoing the first course under the tutelage of nearly that many instructors, many of whom are ex-crew members of *Nautilus.*

Future classes at the Nuclear Power School will be larger, with 66 students scheduled to attend the next session. Original plans called for the next class to number 60, but it was raised for an unusual reason. It seems the increase was required because the number of men selected for promotion to officer status or to attend the officer candidate school is unusually high among those who make the grade in the nuclear energy program.

To best illustrate the point, take the number of men originally aboard *Nautilus.* Approximately 95 enlisted men were aboard for duty at her commissioning and at present 15 of those men have either been selected for warrant, LDO, or OCS.

There is nothing spectacular about the school from the outside. It is merely another brick building on the Submarine Base. The only outward difference is the sign which proclaims it the U. S. Navy Nuclear Power School. The classrooms are distinguished by the lack of standard Navy mock-ups, charts and training aids, for the subject is not one which lends itself to this educational technique. Much of the



ake a look at a New England snowstorm.

Sailors

schooling must be on the theory behind the reactor, for there will be plenty of practical training at the landbased prototypes later.

Actually, the working of a reactor, such as the one now operating in *Nautilus*, is really very simple at first glance. But knowing how it works and why it works is something different.

Basically the reactor is a "core" containing enriched uranium, cooled by ordinary water that is kept by high pressure from turning into steam. The water comes out of the reactor at a very high temperature. It is then led into a heat exchanger where it turns a second batch of water into high pressure steam. The steam, which is not radioactive, runs the turbine that turns the propeller.

That explanation is deceivingly simple. The reasons and the know-how required to run a reactor and be ready for all the emergencies that might arise present many heretofore unknown problems.

While the problems are different from any ever before encountered by Navymen, the students at the school aren't radically different from the rest of the men who wear the Navy uniform, unless it is in the fierce drive and determination that keep them up, on their own, studying long after the rest of the station lights have gone out.

They know, as does everyone at the New London base from admiral to seaman, that they are pioneering. They have a chance that will never come again, that of being the first navymen trained by the Navy for the vital and important job of manning the ships of the future, the nuclear powered submarines that hold forth a promise of being the ultimate in the submariner's dream, for *Nautilus*, *Seawolf* (SSN 575) and the other 13 nuclear powered submarines already authorized can stay submerged almost indefinitely.

The present group of enlisted students range from second class to chief petty officer, while the officers are either lieutenants, junior grade, or lieutenants. They know in the near future they may have the job of training the men who follow in their footsteps, for as sure as day follows night the school will grow as the number of nuclear powered submarines grow. As they learn from the first men, so shall the future submariners learn from them.

Almost without exception the students at the Nuclear School are career men who see the training as a chance to get in on the ground floor, a chance to grow up and prosper in a Navy that will be a totally different Navy, in concept, striking power and scope.

While most of the men are married and have children, they have entered into the nuclear program with no hesitation, with an enthusiasm seldom encountered. They are anxious to get aboard a boat which will give them a chance to exploit their knowledge. At this stage, only two months after the school's beginning, that opportunity is a long way off, for following their basic instruction at New London, the students will head to either Idaho Falls, Idaho, or West Milton, N. Y., for another six months, during which they actually operate a land-based prototype reactor.

The prototype at Idaho Falls is of the same type employed aboard *Nautilus*, while the one at West Milton is the type which is destined to make its naval appearance aboard *Seawolf*. The *Seawolf's* reactor will differ from that now in use aboard *Nautilus*. The prime difference will be in the fact that a liquid metal, sodium, will be used in the primary loop rather than the water. Sodium will run through the reactor, then through a heat exchanger where it turns water into steam to drive the turbines. There are many other ramifications of the differences between the two which make it necessary for the students to split up between the two prototypes. (For a sample of how a submarine's nuclear power plant operates see pages 32 and 33.)

The nuclear school is a good place to get some erroneous notions about

IN NAVY'S FIRST NUCLEAR power school sailors listen intently as instructor LT Robert Crispin, USN, explains math equation during study of reactor theory.

nuclear energy tossed aside in favor of the straight dope. One of the first fallacies to go down the drain is the idea that it take a mathematical genius to master the hundreds of formulas and equations which the nuclear people toss at each other whenever they get together.

Usually when you mention the words "nuclear energy" the average mind conjures up a picture of a long haired scientist, hard at work in a laboratory or deep in the heart of a secret project. Maybe that picture had some justification in the beginning, but Navywise it would be more correct for the mind's eye to see a crew cut sailor or junior officer intent on the dials of a reactor or busy boning up on the latest developments in the nuclear field.

While mathematics is an important part of the curriculum at the school, it isn't the big bugaboo that might be expected. Several of the students in the basic course, which is primarily for enlisted men, failed to finish high school before coming into the Navy, yet they apply a little extra effort, work a little later at night and keep up with those students who put in a year or two at college during their civilian days.

Thomas P. Kelsey, EN2 (SS), USN, is a good example of what can be done in the way of learning mathematics. Kelsey got no further than his sophomore year in high school and during that year flunked high school algebra. Yet, today he is in the midst of a class in basic mathematics which starts with the arithmetic of fractions and decimals and advances through all phases of mathematics right up to the use of logarithmic, trigonometric tables and skirts integral calculus.

"It isn't the easiest thing in the world," says Kelsey, "but this school and its methods of teaching the math have certainly done wonders with me. I have to work hard but I think that if I can do it anyone with the ability to try can do the same."

One of the biggest reasons that men attending the school have been able to move along so well in their mathematics is 23-year-old LTJG Frank T. Birtel, USNR, who has as solid a background in math as can be found. He has a master's degree in mathematics and for two years taught at Notre Dame as a Fellow while studying for his degree. Getting his degree toook him five years instead of the usual seven in one of the toughest fields there is.

The slim, dark-haired officer explains that the course taught the basic students differs to some degree from mathematics taught at universities. Here, the students get more practical application than is usually given in the civilian schools. After an intensive grilling on the framework of math the students got a chance to work with the formulas they will be using to describe the reactor and other elemnts of their work. "What it boils down to," says Birtel, "is a solid course in applied mathematics, but a rough one."

While it isn't easy, both LTJG Birtel and LCDR William W. Behrens, Jr., USN, Officer-in-Charge of the school, both agree that the Navy students compare favorably in many respects with college students.

The basic mathematics course is 55 hours long and LTJG Birtel has a first class electronics technician as his assistant. He is Lawrence L. Lawyer, a former *Nautilus* crewman who came to the school after a year in the boat.

It is anticipated that sometime in the future Lawyer will take over part of the basic course and allow Mr. Birtel to devote more time to teaching the advanced course which is for officers and enlisted men who show the ability and aptitude to absorb more than the basic course offers.

In Lawyer's words, "the advanced course is a real wing-dinger." The students in that course must have a really solid background of math even to begin. At present no enlisted man has been selected for the course but indications are that it won't be too long before a whitehat will be parked along with those of officers outside the advanced classrooms. All hands show an almost fanatical devotion to study and work.

The desire by some of the students to get into the nuclear energy field is amazing. Take the case of Lawrence P. McNeice, ET1, USN. McNeice was a YN1 when the Submarince Force first began asking for volunteers for the nuclear program.

"I knew that I wanted to get into the program and tried every angle I knew," he said. "But my rating kept me from being accepted. Along about that time I heard about the program which allowed nearly any rate to attend electronics school and decided that if I couldn't get in the front door I'd try the back."

In time McNeice put in his application, and was accepted for the ET conversion course. It took a year's hard work to get through the school, but he made it and changed his rating, always looking ahead to the day when he could apply for the nuclear program.

From ET school he was assigned to USS *Tigrone* (SSR-419) and his first official act was to put in his application for the program he had been aiming at all along. It took time, but after a cruise to the Mediterranean and trips around the East Coast, his name came up on the list

just as the school at New London opened. Thus, as long last, he entered the field he couldn't enter back in 1953. He's doing very well, too.

One item missing at the school is a snap course. None of the courses are easy, but they can all be assimilated by Navymen because of the thought, work and energy that have gone into setting up the school.

When the school was first proposed there were those who wondered whether the Navy would be able to come up with enough instructors of a caliber to handle the knotty problems that would arise. The answer to that has been a definite and loud "Yes."

From the officer-in-charge down to the newest of the instructors, everyone concerned has put in his utmost and come up with a finished product that has surprised the experts in the field.

LCDR Behrens, a quiet, likeable man, is a submariner who had command of two submarines before getting into nuclear energy. He and his staff know both the practical and theoretical side of every problem that arises and in many cases have neglected their homelife in getting the school underway.

"One of the things that has helped most has been the terrific cooperation all the way up and down the line," says LCDR Behrens. "Everyone we have talked to has done all he could for us. In particular the Naval Reactors Branch of the Atomic Energy Commission has worked hand in glove with us in establishing our curriculum."

It was difficult to obtain qualified instructors in this new field, yet each of the instructors is well qualified for his position and can hold his own, in his specialty, with just about any nuclear physicist in the country today. Take LT John F. Fagan, USN, in the Physics Department, who graduated with distinction from the Naval Academy, and later received three years of postgraduate training in nuclear engineering at M.I.T. He has joined with Dr. Austin R. Frey, only civilian at the school, to produce a physics course that would do justice to any institution.

Dr. Frey is another case in point. Before coming to the Nuclear Power School he was at the Monterey Postgraduate School, serving as head of the physics department. Actually, he is only on loan from Monterey, to assist in the groundwork, but he has been caught up in the enthusiasm radiated by the submariners and has devoted more time than duty called for in his work.

Another example is Electrician Robert R. Dunn, USN, who was a second class petty officer when he first entered the nuclear program. After going through the early nuclear training he returned to put *Nautilus* into commission and was serving on board her at the time his promotion to W-1 came through. Dunn takes a back-seat to no one in his knowledge of the electrical systems and components of the reactor and also has the ability to get that knowledge across to his students in the classroom.

The enlisted instructors, three CPOs and seven first class petty officers, are all veterans of the early nuclear training program and all but one have served as a crew member in *Nautilus*. That exception, John F. Skelly, EN1 (SS), USN, is a specialist in the type of propulsion system to be installed aboard *Seawolf*, having recently reported to New London from the West Milton prototype training.

While Skelly is the only instructor who has been given special training in the reactor system to be aboard the second nuclear powered submarine, all the instructors must be familiar with it as the students receive basic training in both systems. As a result, it isn't unusual to find Skelly giving a lesson to the students while several of the instructors sit in the back row taking notes and working as hard as the students.

'SAFE' PLACE is provided for books with classified info. Here, J. M. Delany, IC2(SS), USN, stows them away.

Here again, the enthusiasm and spark shown by the people at the school is unusual. While only one instructor is required to be at the school after working hours to assist the students in their extra study, evenings often find several of the instructors busy working on lesson plans or studying to keep abreast of new developments in the field.

Taking no credit away from the nuclear power men in the country today, it might be well to wonder if the big mystery of nuclear power

How to Apply for Nuclear Submarine Training

The nuclear power program is still growing and there may be a place in it for you. Check the qualifications below to see if you can apply for duty aboard a nuclear submarine.

To be eligible for the submarine program enlisted men must be in pay grades E-3 through E-7 in one of the following ratings: MM, EN, ET, EM, IC. Hospital corpsmen in pay grades E-6 and E-7 may also apply.

You should be qualified in submarines and physically qualified for submarine duty. You may be no more than 30 years of age and must be a high school graduate or have the GED equivalent. A combined ARI/MECH score of 105 is needed and you should be highly motivated, have a clear record and have a minimum of four years' obligated service.

If you meet the requirements, submit your request via your commanding officer direct to the Chief of Naval Personnel (Attn: Pers B2251), giving above information.

In all cases you will be advised as to what action is taken on your request. If you cannot be assigned to training immediately, you will be placed on a waiting list for assignment at a future date and need not submit another application.

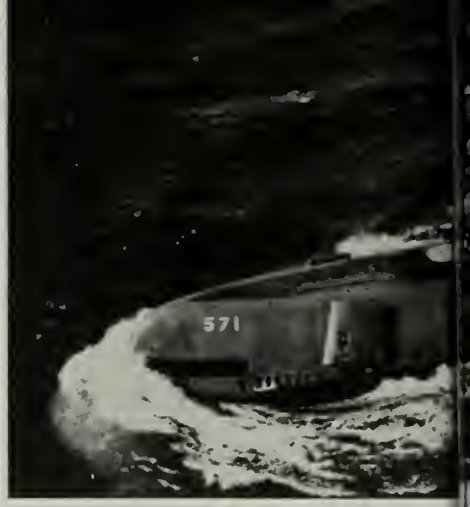
isn't in the fact that it is new and unknown. At this time the changeover in the Navy to nuclear power is as important and vital as the earlier changeover from sail to steam. It might be well to remember that during that earlier changeover there were many who predicted that the new-fangled steam would never work. They were sure that vast explosions would destroy our ships.

"The same fears hold true in many people's minds about nuclear power," said William J. Fleming, ETC (SS), USN, the instructor recently selected for Officer Candidate School. "I often meet people who say that they have either read or heard that the nuclear powered ships are nothing but huge atom bombs that may explode at any minute." He paused and smiled, "As a man who was in charge of reactor control aboard the boat and who is now teaching it here at the school, I can guarantee that there isn't a chance in a million that the Navy's reactor would cause an atomic explosion. Regardless of what went wrong, there wouldn't be an explosion. The AEC and the Navy have made sure of that."

While all the students receive the same basic instruction, they branch out during the last few months. ETs receive special training in reactor control, the EMs in plant machinery and the ENs in plant control.

The students, even in the first few months of their study, are well on the road to becoming initiated in the field of nuclear power. The six months spent at the nuclear power school is a valuable asset in their training. With it, they can move on to one of the AEC's two prototype reactors and complete their training in one year's time, AND . . . . . .

MANEUVERING ROOM watch keeps intent eyes on the three power panels that supply the power to *Nautilus'* screws during training operations at sea.



CUTTING A WAKE into the era o

This Is What

ON THE DAY that the students first report aboard a nuclear powered submarine, they will be officially graduated into the status of practicing nuclear experts with all the problems and responsibilities that go with the title.

When that important day comes, they can count on serving in the most modern and most comfortable of all submarines. For, in addition to heralding a new Navy through the use of nuclear energy, *Nautilus* is the final word in comfort. The Navy has gone all out to insure that the crew is kept happy and the subsequent SSNs will have all that *Nautilus* boasts, plus more to come.

One of the reasons that the Navy has stressed the comfort angle so much in the new submarines is best reflected in the current story going the rounds of the Submarine Force.

"It is rumored," said a seaman on the base, "that the nuclear powered jobs will only surface once every six years, and then only to allow the crew to ship over."

Six years is a little longer than naval operations will ever require any submarine to stay under water, but it is true that they can stay submerged almost indefinitely should the need arise, and because of the long submergence, much effort has been made to insure that the crew is provided with the best in the way of living quarters.

From officers' country to the crew's quarters, *Nautilus* is a revelation, not only to the submarine sailors but also to the non-submariners. Tales of crowded living conditions, low overheads and such just

omic propulsion for the Navy, *Nautilus* has proved the practicability of this new power for future ships.

t's Like In a Nuclear Powered Ship

aren't true aboard SSN 571. She seems to have nearly as much room as the average destroyer.

The mess hall aboard *Nautilus* is a roomy, tastefully decorated affair which sports benches and tables that fold back and make comfortable seats for movies in the evenings. Or they can be removed and a table tennis set-up erected for a tournament. There is a television set for in-port viewing, a radio and a juke box which has outlets in the mess hall and CPO quarters with a selection box in both places.

The boat also has the first nuclear powered coke machine in the world. It is a bit smaller than most, since it had to be specially designed to come down the hatch, but the dispenser rates along with many other features to make life better for the crew.

The chiefs aboard *Nautilus* fare as well on the submarine as they would on just about any other ship in the Navy. They have a CPO quarters that sleeps 12, their own special head and a lounge room that is as big, if not bigger, than the wardroom on a conventional submarine.

The individual bunks aboard the nuclear powered boat are designed to give each man the maximum in comfort and convenience and each man has his own locker space alongside his bunk, foam rubber mattress and room enough to stretch out.

The food situation aboard is the same as in every submarine and there is no denying that it comes close to the top. A typical meal on a recent Friday consisted of either boiled Maine lobster or a two-inch thick steak, with french fries and all the trimmings.

The top-notch living conditions are important to all aboard, but serve more as a frosting on the cake to the crew for they are all vitally aware of the place they are filling in the Navy. They are the leaders in a field that is, as yet, almost untouched. Every time *Nautilus* dives, surfaces or gets underway, they are setting new records and proving again that the men who dreamed and fought for the nuclear powered submarines were correct in every prediction made about the future of nuclear power.

Perhaps nothing can get across better the tremendous potential of nuclear power in the Navy than a statement made by Paul J. Thorpe, ETC, USN. Thorpe, chief in charge of the reactor control room, was discussing the power plant with a visitor and offhandedly remarked:

"Since the boat has been in commission we have yet to worry about fuel. In over a year's operations we have been running on nuclear energy and can't even predict when we might have to change the reactor core. You might say that we still have lots of energy."

Thorpe's opinion, echoed by all in the program, heralds a Navy that will some day be freed of all fuel difficulties and which will become unlimited in its ability to travel great distances. The nuclear Navy of the future will be powered by power plants that are more efficient and safer than any ever produced. Not only submarines, but destroyers, cruisers and carriers will someday be carrying reactors, giving the U. S. an even stronger and more potent weapon than today's Navy.

Performance-wise, *Nautilus* has more than lived up to her advance billing as many VIPs can testify. During her short career the boat has carried over 60 different flag officers, many high ranking civilians from the Department of Defense and Congress

Wide Screen Movies Go Underwater Too

The last place in the world you would expect to find a wide screen movie would be aboard a submarine, yet USS *Nautilus* (SSN-571), in addition to all her other habitability features, has provisions for showing wide screen movies in the crew's mess hall.

A special screen, measuring six feet, 10 inches wide, by two feet, 10 inches high, has been made for the boat and installed. A special lens is needed to show the wide screen movies and this, too, has been appropriated with the result that the super duper movies coming out of the film capitol receive early showings aboard the boat.

While the screen is probably the smallest "giant" screen in the country, the crew claims that it is perfect except on those occasions when one of the female stars appears in costume, then they bemoan the fact that the screen isn't a little larger.

A FIX RECEIVED at periscope depth from a Loran station is plotted by QM First Class J. P. Teixeira, USN, as LT W. R. Cobean, Jr., USN, observes.

and members of the AEC on short cruises.

On these trips with VIPs embarked, the boat and her crew go through the paces to show just what a tremendous piece of machinery *Nautilus* is, and as yet no one has ever gone away with less than complete enthusiasm for the submarine and her crew.

Once *Nautilus* gets underway from her New London pier she proceeds out into the open water near Block Island for the full demonstration of her capabilities. With plenty of deep water below, the word is passed for "angling and dangling," the crew's nickname for a maneuverability demonstration.

After all loose gear has been secured the skipper, CDR Eugene P. Wilkinson, USN, assembles the guests in the control room and takes off all stops on the submarine, explaining each move as it is made.

While a full performance report on *Nautilus* can't be released at this time, suffice it to say that the boat has exceeded the Navy's most optimistic expectations. As of 1 Mar 1956 she had steamed 29,377 miles with over 15,000 miles of that submerged.

Some of the senior flag officers who have had previous submarine experience find it hard to believe their senses as they watch the control board during the operations. After the demonstrations they become almost lyrical in their praise of the boat.

"It's unbelievable," said a two-star admiral recently. "I only wish I were younger and could start all over in this New Navy that the *Nautilus* is spearheading."

Following the complete demonstration, with the regular watchstanders at the controls, the fun begins. The skipper and the crew provide a special surprise for all visitors by allowing them to handle the controls while underway.

With the diving officer standing behind the controls and checking each visitor out, the boat soon begins to go through its bag of tricks. At times like that the number of stars sitting in reaches pretty large figures and it is doubtful if any ship has had more rank at the controls. The present record was reached with two four-star admirals and one three-star admiral serving on the bow planes, stern planes and helm.

Following the orders of the skipper, the visitors take the boat and handle her in dives, climbs and turns. For some of the visitors it marks their first time at the controls of a submarine and yet, after the first few nervous moments, the guests handle the submarine with all the skill of an old hand. However, there is a note of tension and unfamiliarity on their faces that is missing when the watchstanders return to the controls.

The crew of *Nautilus* gets a big kick out of these operations and have standing jokes concerning their frequent VIP trips.

One third class in particular is keping a special log on how many admirals he has relieved on the stern planes. At present the list is quite lengthy, with indications that more will follow.

In addition to being impressed with the boat during her maneuvers, guests aboard can't help being amazed in touring the entire submarine.

From her maneuvering room to the forward torpedo room, *Nautilus* is loaded with innovations that open many an eye. In the engineroom for instance, are located the only known upside-down periscopes in use aboard submarines today.

The topsy-turvy periscopes serve to give the reactor control gang a view of the reactor space which is not entered while the reactor is in operation because of radioactivity.

While this space is radioactive, there is no danger of contamination spreading to the rest of the boat. Thick shielding protects the crew in other compartments. The only time the reactor space itself is normally entered is when the reactor is secured.

While the danger from radioactiv-

ity is slight, every precaution is taken aboard *Nautilus* to insure that nothing goes wrong at any time. Each crew member wears a small clip-on indicator, which is read frequently by the corpsmen aboard, to make sure they aren't being over exposed to radioactivity. AEC laboratory safety standards have been used as the reference in constructing the ship.

"Except for the people in reactor control," said Ernest P. Resner, HMC, USN, "no one has been exposed to any more radioactivity than they might pick up on a day at the beach under the direct sun. The people in reactor control get a little more than that, but not enough to be dangerous. As a matter of fact," he concluded, "the most that any one man has picked up in a year's time wouldn't have hurt him if he had been exposed to that much in a week's time."

In the event that any trouble should develop in the reactor, the boat carries special clothing for the men who would go in the lower compartment and do the repair work. However, unless it were an emergency the reactor would merely be secured and the ship would then switch over to either diesel or battery power.

While *Nautilus* has both battery and diesel, the batteries needed are far smaller and fewer than on the conventional submarine. This is one of the reasons for the added room so noticeable aboard the boat.

Both the diesel and battery systems are in operating condition and can be utilized at a moment's notice by merely switching one or the other on through the maneuvering panel located aft. There are three panels, one for the nuclear power, one for diesel and one for the batteries. A man is on watch over each system whenever the boat is underway.

Throughout the boat the same thorough planning is evident. Wherever a problem might arise, a solution is ready and waiting. Every problem that has arisen in the little over a year the boat has been in commission has been met and defeated. Sometimes the problems called for new answers, sometimes for old familiar ones that come only from experience. Whatever they were, the men of *Nautilus* were waiting and above all, prepared.

Whatever the future holds, and you can let your imagination run riot on the possibilities, it is definite that *Nautilus*, her crew members and the men now attending the Nuclear Power School have been in on the ground floor in the development of the Atomic Age Navy.

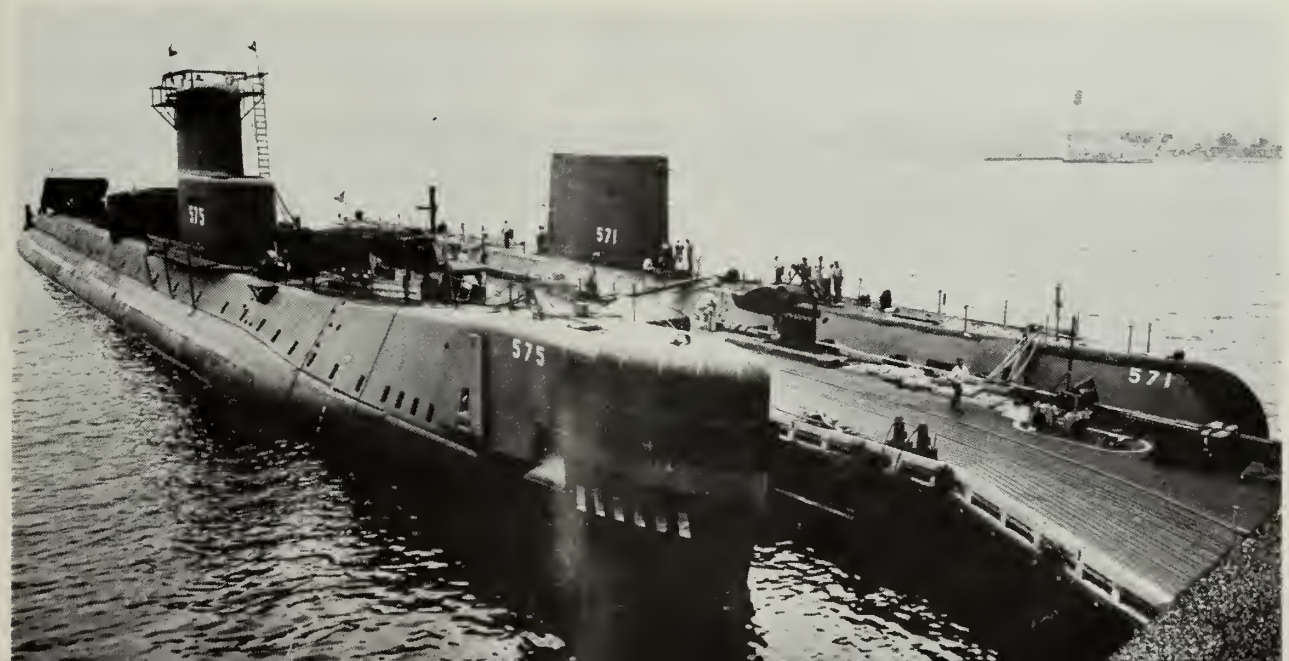
— Bob Ohl, JOC, USN.

What You Learn at Nuclear School

Taking the mystery out of nuclear energy—that is the major job of The Nuclear Power School in New London, Conn. To do this job a basic course for enlisted men has been set up which is based on the following subjects:

- *Mathematics*—A 55-hour course which begins with fractions and decimals, and takes the students through algebra and trigonometry to introductory calculus.
- *Modern Physics* — A 90-hour course which is a survey of classical, atomic and nuclear physics.
- *Reactor Principles* — A 40-hour course which introduces the students to reactor physics, engineering and materials.
- *Slide Rule and Blueprints*—A 15-hour course which teaches the students how to use the slide rule and how to read blueprints.
- *AC Theory*—A 30-hour course on the principles of alternating current.
- *Thermodynamics* — A 15-hour course on the laws of thermodynamics.
- *Nuclear Power Plant Systems*—Two courses designed to introduce the system used aboard *Nautilus* and the one to be installed aboard *Sea Wolf*.
- *Water Technology*—A 10-hour course dealing with properties of water.
- *Health Physics* — A 10-hour course in preventive medicine as applied to nuclear energy.
- *Specialized Traning*—Each student receives 200 hours specialized training in the job his rating performs aboard the submarines.

USS SEAWOLF (SSN 575), atomic sub number two, moors opposite *Nautilus*. Soon more A-powered subs will join them.



A Year in the Log of USS Nautilus without Refueling

During her first year of service, USS *Nautilus* (SSN 57) has demonstrated to the U. S. Navy and to the public the practicability of travel by nuclear power. She has also compiled an impressive list of statistics and broken innumerable records. Here's a summary of the Navy's first year "underway on nuclear power."

In 365 days *Nautilus* made 365 dives and traveled 26,231.3 nautical miles without refueling. Just over half of this distance (or 13,140.7 miles) she had steamed totally submerged, the longest such run lasting 89 hours and 42 minutes. She visited six ports from Portsmouth, N. H., to St. Thomas, V. I., her longest period underway lasting 206 hours.

In her first 75 cruises, she has carried 1542 different passengers, in addition to her crew. Her guests, mostly naval and test personnel, have included high government officials, Congressmen, and 76 admirals. Many of them have sailed in her more than once.

Personnel were transferred at sea via helicopter 110 times. Another 4913 officials and Navymen inspected her in port, including the entire Class of 1956 of Naval Academy midshipmen. Many of the latter will some day serve aboard nuclear warships.

In spite of this activity, the recreation of her crew, numbering 93 enlisted men, were not neglected: 387 feature movies were shown in the crew's mess in the first 12 months. Nor has the public forgotten the men of history's first uranium-powered vessel: fans have addressed over 8700 letters to the ship, several of which have borne such abbreviated addresses as "Atomic Submarine, USA." In addition, 2168 classified letters were among the 6000 pieces of official correspondence received aboard, while her yeomen typed nearly 2800 outgoing official letters. *Nautilus* radiomen tapped out 710 messages, and received 1566 messages in return.

AT BATTLE station on Nautilus J. A. Baumgartner, IC1(SS), USN, shifts a gyro repeater during sea tests.

And how have the crew fared at the mess table? The figures would indicate both healthy appetites and healthful meals, for over 21,002 pounds of fresh meat, 3894 pounds of fowl, and 1118 pounds of Navy beans were consumed on board, after having been washed down with 89,482 cups of coffee, a sure indication that the Fleet's favorite beverage is also the most popular in the atomic Navy.

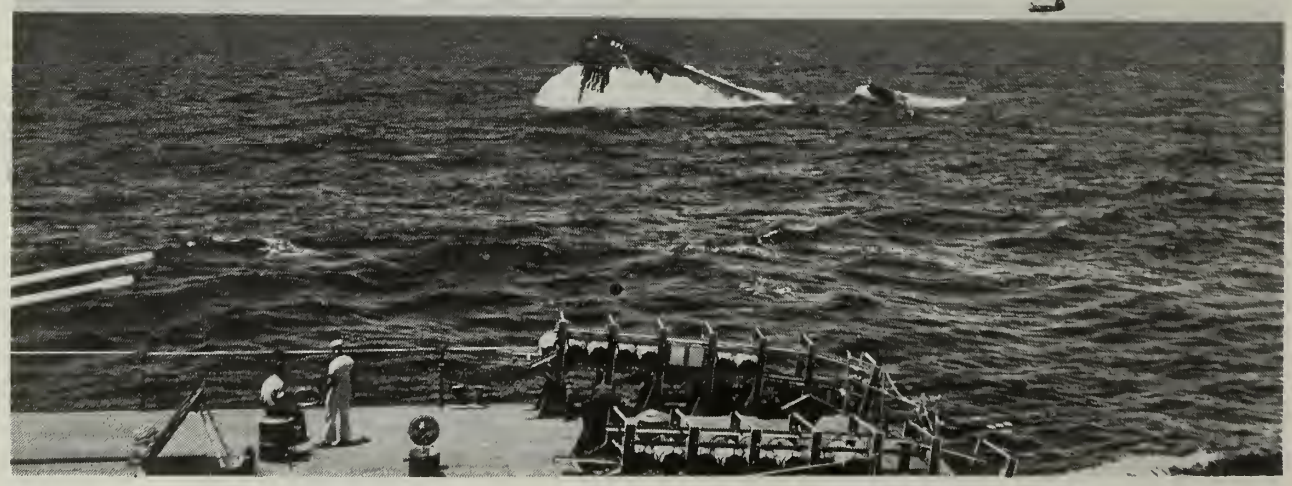
Forty-six crew members were promoted in the first year. This included the Skipper, CDR Eugene P. Wilkinson, USN, and six other officers selected for promotion, five enlisted men commissioned as officers, and 34 petty officers advanced in rate. Thirteen have reenlisted since last January. These promotions and reenlistments necessitated the assignment of 38 new men to replace those transferred to schools and other duty.

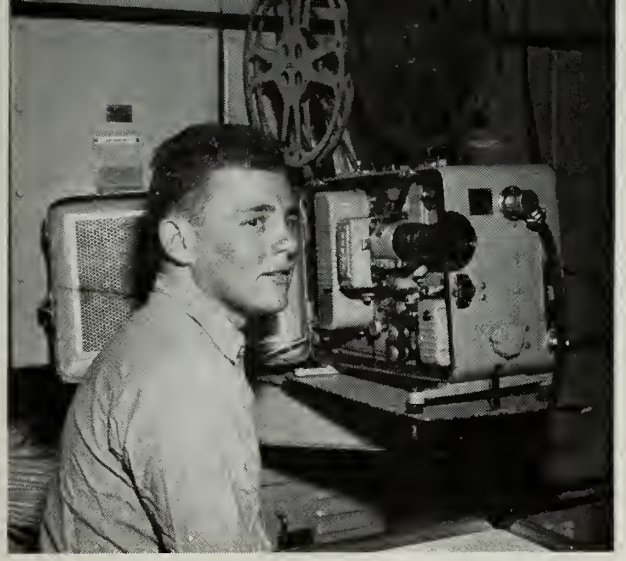
Nautilus has set and broken so many records that her crew can no longer keep track of them. On 21 Mar 1955 her wardroom served as the first submerged Congressional hearing room when she carried the Joint Congressional Committee on Atomic Energy for an orientation cruise.

On her shakedown cruise to the Caribbean, *Nautilus* made the 1300-mile run from New London to San Juan (P. R.) totally submerged at an average speed of over 16 knots.

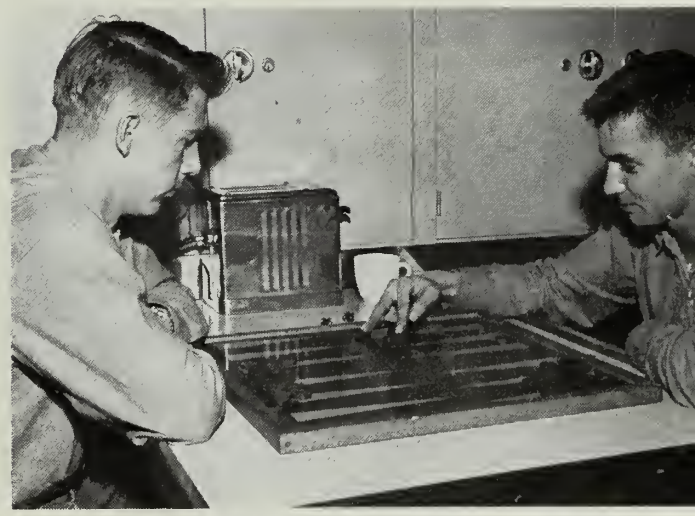
These are some of the statistics released about the first nuclear sub's first year at sea.

A-SUB SURFACES — *USS Nautilus* (SSN 571) comes up by *USS Sarsfield* (DD 837) during amphibious maneuvers.





High Living Below



THE CREW MEMBERS OF USS *Nautilus* (SSN 571) can truthfuly be referred to as living "high off the hog" for not only has the Navy put the most modern propulsion system and operating gear aboard but it has also included all the latest comforts that could possibly be fitted into the atomic powered sub's hull.

Top left: Special lens brings the latest wide screen movies into converted mess hall as D. K. Breese, SN(SS), USN, acts as projectionist. *Top right:* Lobster salad is prepared by D. R. Wilson, SD3(SS), USN. *Right:* The old Navy game of acey-deucy finds its place in the nuclear Navy as J. W. Armstrong, SO2(SS), USN, (left) and R. L. Kloch, QM2(SS), USN, battle it out. *Lower left:* R. V. Foster, EN1(SS), USN, slakes his thirst at soft drink stand running on atomic power. *Lower right:* Large mess hall affords plenty of room for off duty activities. Tables change to seats for movies.

There's Going to Be a Wedding

A NAVAL ENGAGEMENT of the utmost importance was announced early this year. Not a shot was fired as this is an engagement which will be followed by one of the most important weddings of the year.

This will be a wedding of the fish and the atom to produce an improved nuclear-attack submarine. It will represent another step forward in underseas ship development, and will be superior to its nuclear powered predecessors, USS *Nautilus* (SSN 571) and USS *Seawolf* (SSN 575), in all aspects of its underwater characteristics.

The first submarine that will have both the "tear-drop" or fish-shaped hull design and a nuclear reactor will be SSN 585. The new SSN hull design will be shorter and less slender than that of previous attack submarines and will have a slightly larger displacement.

In addition to the atomic powered submarine that will have the tear-drop shaped hull, three other diesel-powered submarines to be built in fiscal 1956 will have hull designs similar to SSN 585.

The three diesel-powered submarines, SS 580, SS 581 and SS 582, will have about the same displacement as previous post-war submarines, but will have a single screw propeller rather than the conventional twin screws. Engines will be high-performance, improved modifications of WW II heavy diesel models.

The first submarine that was produced with the fish-shaped "tear-drop" hull, the USS *Albacore* (AGSS 569), has been in operation for over a year. This test has turned out to be successful from a hull design standpoint as *Nautilus* was from the viewpoint of atomic propulsion.

Since the end of World War II, experiments have been going on with submarines of various designs and for different missions. First came the conversion of a number of diesel-powered boats into guppies — submarines with snorkel breathing devices, extra batteries for increased underwater endurance, and the streamlining of the hull for greater speed submerged.

Then came a number of undersea craft for special missions. These were the SSKs, hunter-killer submarines designed to fight enemy submarines below the surface; large picket boats, to serve as radar picket boats to warn the battle Fleet; guided missile submarines; troop-carrying subs and underwater tankers.

In the meantime, experiments were proceeding with atomic propulsion and the "tear-drop" hull design of USS *Albacore*. *Nautilus* was built with an improved hull design, plus a nuclear reactor to provide atomic propulsion. The result was a displacement of about 3400 tons submerged. The second A-sub, USS *Seawolf* (SSN 575), will be slightly larger.

Albacore, however, is a fish of a different design. It is the new look in submarine hull design, which permits the boat to go farther, faster, without paying so much for the ride.

Albacore was conceived in 1948 when it became evident that, due to increased speed and detection abilities of destroyers, ASW weapons, and the receptive power of sonar, submarines would have to go faster underwater. The Bureau of Ships, working with the David Taylor Model Basin at Carderock, Md., set out to design a submarine whose hull form would permit the utmost submerged speed with a minimum of power while still considering living conditions for the crew and control of the boat for steering, diving, surfacing and operations submerged.

A thorough study of airship research and other previous work was made. Actually, there is little difference betwen a submarine submerged in water and an airship flying in the

'HOT ROD' SUB'S crew members operate manifold in engineroom of Navy's *Albacore*. It has high speed hull design which will be used on A-powered sub.

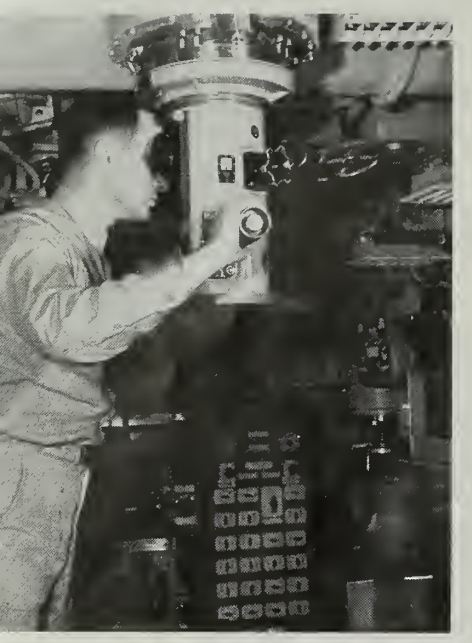
air. It is the medium in which they "swim" or travel that is different. A submarine represents an air bubble in the water while an aircraft represents a solid body surrounded by a "sea" of air.

In addition to the work at the David Taylor Model Basin, further experiments were conducted with the help of the National Advisory Committee for Aeronautics at Langley Aeronautical Laboratory, Langley Air Force Base, Va. Here tests were performed in the wind tunnel on a one-fifth scale model of *Albacore*. The model was mounted in the wind tunnel just as aircraft models are tested and for many of the same reasons. From this investigation a hull was formed that presented the least amount of frictional drag consistent with volume requirements.

There are a number of factors which affect the resistance of any ship. They are such things as skin friction, wave-making resistance, eddy-making resistance, roll and pitch, and wind and sea. For a submarine the shape of *Albacore*, there is much less surface area exposed to the water than in conventional submarines and particular attention was given to the smoothness of the hull.

The new hull lines of *Albacore* are so efficient in comparison with hull forms of World War II Fleet type boats and post-war streamlined guppies, that compared on an equal vol-

USS ALBACORE (AGSS 569) leaves a narrow wake as her fish-shaped body cuts through the sea. *Below: Albacore* surfaces during test run as blimp passes.



FISH'S EYE VIEW of what's going on up there. Officer of *Albacore* takes turn at periscope of experimental sub.

ume basis, *Albacore* requires less than one half of the shaft power of the guppy submarine to make the same submerged speed. When using total power available, she is faster submerged than any other U.S. submarine currently in operation.

Albacore is smaller than the new *Tang* class boats but larger than the "K" class of killer-boats. She has a crew of 36 men and four officers. Another innovation in submarine construction is *Albacore's* single screw. The recently constructed "T" class training boats were the first in many years of submarine construction to use this type. *Albacore* uses a single, five-bladed screw which resulted in the unusual configuration of her stern planes and rudder.

She has a small conning tower bridge which resembles the dorsal fin of a fish. Her tail looks like that of a Navy blimp.

Albacore's main propulsion power plant is a conventional diesel electric drive similar to that carried aboard the *Tang* class of subs. The engines are the radial pancake type, used for their light weight and space-saving qualities. A single motor with two armatures operate on the single propulsion shaft.

In the hydraulic system, hydraulic pressure is released to operating mechanisms by the use of electrical solenoid stop valves which are electrically controlled from a central control board located in the Central Control Room.

Bow and stern planes, as well as steering, can be controlled by one operator using an aircraft-type joystick arrangement. A forward thrust of the stick actuates hydraulic controls that in turn power the bow and stern planes giving them dive-angle for submerging.

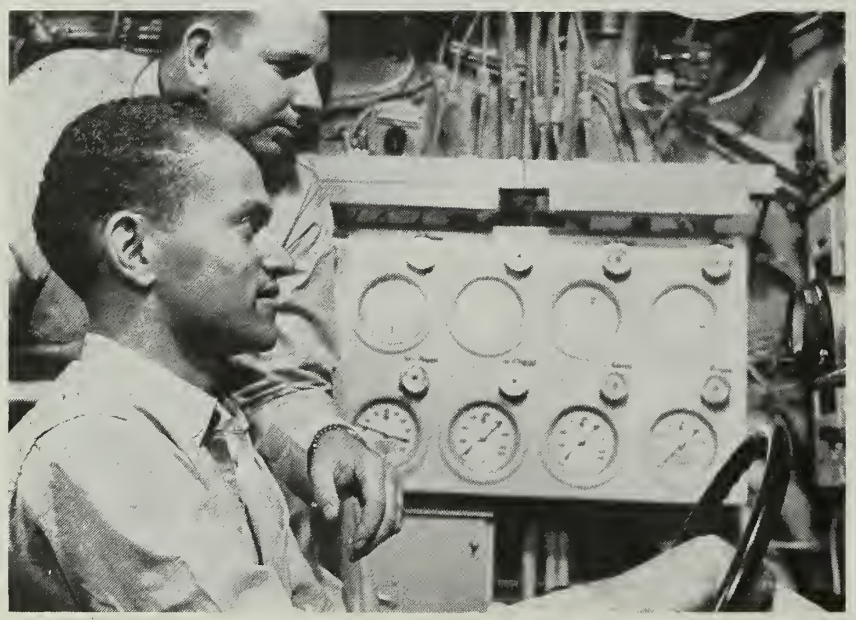
Pulling back on the stick reverses the process and the bow and stern planes shift to a rise-angle position. A wheel on top of the stick it used for steering the boat.

Albacore can also be controlled by one, two or three men at one time. When two or three men are used to control the ship, one man does the steering, with one or two men controlling the depth.

With her new hull design that resembles a sperm whale in shape, the new *Albacore* has been able to go faster submerged than on the surface and requires less horsepower to accomplish it.

Albacore represents another long stride that submarine hull design will be making in the future. With the information she has provided, the U.S. Navy, in merging the atom and the fish, will develop in SSN 585 (to be named *Skipjack*) a ship that will keep U.S. submarines the fastest—and most potent—in the world.

Rudy C. Garcia, JOC, USN



AIRPLANE-TYPE controls are manned on USS *Albacore* (above); photo below shows streamline features.

Proved in Battle

UNDERSEA SAILORS heaped glory upon themselves and the Navy for their heroic actions in World War II. Their methodical destruction of enemy merchant ships and men-o'-war played a major role in tipping the balance in our favor.

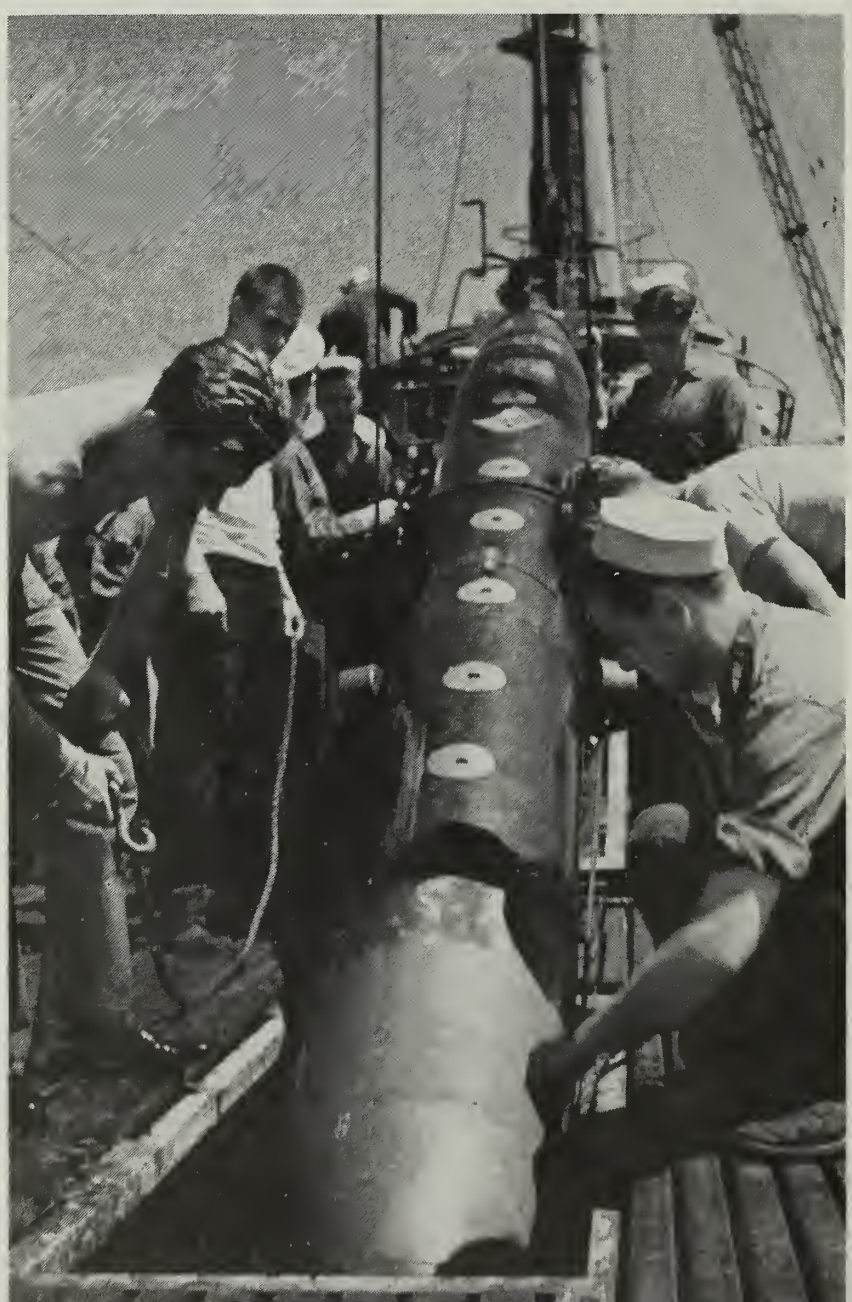
Tales of their heroism and daring, of accomplishing the impossible and more, have become a permanent part of naval history and legend.

Not all submarine yarns follow the pattern of launching torpedoes and sinking enemy ships. Take the case of USS *Barb* (SS 220)—pictured on page 19. She added a chapter to submarine history by landing a saboteur force in Patience Bay, Japan, to destroy a railroad line. Two boats, with four men in each, were sent from the submarine. The men "booby-trapped" the railroad and, while they were returning to *Barb*, their mission was accomplished. A Japanese train roared along, detonated the charge. Twelve cars piled up and the track was a twisted ruin.

Pictured on this page are some of the submarines that made history in the second world war.

Top: heroic World War II submarines take time out from patrols at Pearl Harbor. L-to-r: USS *Flyingfish* (SS 229), USS *Spadefish* (SS 411), USS *Tinosa* (SS 283), USS *Bowfin* (SS 287) and USS *Skate* (SS 305). *Right Center,* (from top to bottom): USS *Guardfish* (SS 217), USS *Tang* (SS 306) and USS *Harder* (SS 257). *Below:* USS *Seawolf* (SS 197). These and other members of the undersea fleet chalked up outstanding records in World War II.

DESTRUCTION of enemy shipping was a decisive factor leading to victory in WWII. *Below:* Submarines load 'tin fish.'



Heroes in

ABOVE AND BEYOND the high standards expeeted of Navymen and Navy ships." "Distinguished . . . by outstanding heroism in action against the enemy." "Distinguished conspicuously by gallantry and intrepidity at the risk of life above and beyond the eall of duty." Such are the phases to be found in citations accompanying awards of the Presidential Unit Citation, the Navy Unit Commendation and the Medal of Honor.

Distinguished valor or enterprise in danger makes a hero; so does fortitude in suffering; and no branch of your Navy has seen more danger—or given a better account of itself—and wound up with more heroes than the submarine service.

The stories behind names like O'Kane and Dealey, *Tang*, *Harder* and *Guardfish* are common knowledge wherever submariners gather. Dozens of other submariners and submarines also gained fame, and their stories make exciting reading, even in the dry language of official reports. Even others were just as heroie, but it was heroism of a different type—the "fortitude in suffering" which usually makes no headlines.

Perhaps best-known of the undersea fleet's heroic submarines are USS *Guardfish* (SS 217) and *Tang* (SS 306), each the holder of two PUCs.

Guardfish pieked up her initial PUC for her first and second war patrols, early August to late November 1942. From her first patrol sta-

Action under the Sea

tion, on the coast of Honshu, SS 217 sent eight ships—or a total of 51,055 tons—of enemy shipping to the bottom and damaged a 7000-ton freighter. Two of the eight were in the same convoy, and went down within a minute of each other, another was credited to a single torpedo, fired at a range of nearly four miles. Her second patrol, in the East China Sea area, accounted for one freighter and one tanker, and damage to another freighter.

The second PUC awarded to *Guardfish* was in recognition of her eighth war patrol, during which she gave an emphatic demonstration of her effectiveness as a Jap shipping nemesis. While working as part of a four-submarine task group off Formosa, *Guardfish,* in a successful "end around" run on a 10-ship convoy, fired six torpedoes at a formation of five overlapping ships. The attack resulted in quick sinking of four of the vessels, including a large tanker. Two additional ships of the 10 were sunk in the next couple of hours. All attacks were made on the surface, using radar and camouflage to full advantage.

By the end of her eighth patrol, *Guardfish* had also sunk a large naval auxiliary vessel and a freighter, and damaged another freighter—a good record in anybody's book.

The fabulous *Tang,* second Navy submarine to pick up two PUCs, identified herself as one of the Navy's fightingest subs in her short career. From her commissioning in October 1943 until she went to the bottom in October 1944, *Tang* accounted for something like 100,000 tons of enemy shipping in the Pacific.

Tang's first patrol began with lifeguard duty in January and February 1944 in the Caroline-Marianas area. On completion of this job, she went hunting for prey—and promptly made contact with a two-ship convoy escorted by a destroyer and *Tang* was forced to go deep and sit out a half-hearted depth-charge attack. Back to radar depth, she loosed four torpedoes at a range of 1500 yards for three solid hits and sank a freighter of approximately 7000 tons. Five nights later *Tang* added a passenger-cargoman and another freighter to her tally. By the end of her first patrol SS 306 had fired 24 torpedoes—and downed almost 25,000 tons of enemy.

Her second patrol resulted in no shipping losses; nevertheless, *Tang* turned in an outstanding patrol. Her cooperation with aircraft of the U.S. striking force attacking Truk, her willingness to proceed from point to point within gun range of shore batteries in order to rescue personnel of downed aircraft—and seizing the initiative by bombarding known gun emplacements on Ollan Island, all added up to a patrol which was not only remarkable—it resulted in the rescue of 22 downed naval air force personnel.

Third of the trio of patrols for which *Tang* received her first PUC was in the East China and Yellow Sea areas. After departing Pearl Harbor on 8 Jun 1944, *Tang* made her first contact—a six-ship convoy—on the night of 24 June and sent to the bottom a 7500-ton freighter and a 10,000-ton Japanese tanker.

Just five days following this operation she bagged a "lone wolf" medium freighter after several hours of cat-and-mouse play which found the submarine making an "end around" run to get her quarry into position, then missing with two torpedoes and being forced to lie low and listen to a barrage of depth charges. Finally back on the surface, *Tang* managed another end around and snuck in a single "feeler" from a range of 750 yards, breaking the freighter's back.

Within the next few hours *Tang* had expended an additional four torpedoes, accounting for a 4000-ton medium freighter and a 2000-ton escort freighter.

Hard-hitting *Tang* topped off her patrol by sinking a 7000-ton cargo ship with two hits (out of three torpedoes), and two additional vessels with her remaining four torpedoes.

Summed up, CDR R. H. O'Kane's boys and SS 306, for their first three patrols racked up the enviable record of 13 enemy ships sunk, 22 naval flight personnel rescued and one PUC earned "for brilliant and heroic achievements" reflecting "the highest

MEN OF SILENT SERVICE fly own battle flag on return from patrol. *USS Parche* (SS 384) won a PUC. Her CO was first living sub man to earn Medal of Honor.

DEADLY RAIDERS of sub pack take time out at Pearl for a well earned rest after returning from hazardous patrols in waters at enemy's door step.

credit upon the courage, seamanship and determination of her officers and men."

Tang's fourth patrol, this one off the coast of Honshu, was another first class showing; but the report of her fifth patrol—her last one—makes up a brilliant saga, the tale of one of the greatest submarine patrols of all time. The citation accompanying the PUC awarded *Tang* for these two patrols tells how she "daringly challenged two large, well armed, heavily escorted convoys" and "without support and in heroic defiance of severe countermeasures she attacked relentlessly from all sides, waging furious battle against terrific odds and climaxing her aggressive fifth patrol by sending every ship of both convoys to the bottom."

The PUC citation does not tell the full story of *Tang*, but let's look at her skipper's citation for the Medal of Honor. In going after the first of those two convoys, Comcander O'Kane (who's now CAPT.) maneuvered on the surface into the midst of the heavily escorted group. Under a fusillade of lead from all directions he launched torpedoes into three tankers, then swung *Tang* to bear on a freighter, but was forced to make way for an onrushing transport. Despite his position—three blazing, sinking tankers on one side, a freighter, transport and several destroyers on the other, and a hail of artillery fire from all directions—*Tang* launched another torpedo attack which blew the freighter and transport out of the water. That was one convoy down.

Hardly 24 hours later, *Tang* met up with her second convoy—and her end. Again she ran into the heart of the convoy formation and fired four torpedoes to down one transport and one tanker, both loaded to the gunwales with supplies for the hard-pressed troops on Leyte. But *Tang* was now in another box, this one formed by a large transport and a tanker on the submarine's stern; a destroyer on one side; two or more destroyer escorts on the other; three sinking ships directly off the bow; a "hot-lead" overhead and the bottom below. Facing her charging attackers, *Tang* needed just three torpedoes to halt the tanker, the transport and the destroyer.

With her last two torpedoes *Tang* then squared off on the crippled freighter. The first "fish" ran straight and true, hitting the target like all good torpedoes should; the second, erratic animal, ran a circular course which brought it into *Tang's* stern, despite the submarine's frantic attempt to get out of the way. Although *Tang* sank immediately, several members of her crew (including her skipper) were captured and sat out the remaider of the war in prison.

After *Guardfish*, after O'Kane and *Tang*, there are uss *Barb* (220), *Bowfin* (287) and *Trigger* (237), each with one PUC and one Navy Unit Commendation; and *Seawolf* (197), who earned herself a pair of NUCs.

The first paragraph of the Navy's official history of *Barb* gives you a pretty good idea of the conduct behind her awards: "In ringing up a toll of nearly a quarter million tons of Japanese shipping sunk or damaged, uss *Barb* resorted to nearly every type of aggressive warfare, ranging from a bold surface assault in a shallow, uncharted harbor to an old sea fisherman's trick of seeking cover behind icebergs to waylay her unsuspecting prey. She was the first submarine to employ rockets and the only one to blow up a railroad train."

Barb's official history is also one that tells a tale of "fortitude in suffering." On her ninth patrol (which began 4 Aug 1944), *Barb* made ready, after a sleepless night and a five-hour submerged chase, to attack a large hunter-killer ship. At this crucial moment she ran afoul of a fiendish anti-submarine weapon—a bird which patrolled ahead of the submarine and, upon spotting the periscope, proceeded to perch on it and drape his tail feathers over the exit windows.

The sleepless, frustrated approach officer banged on the scope, shook it, shouted at the bird, all to no avail. He even raised and lowered the scope desperately, but the wily fowl hovered in the air as the periscope went under and returned when it was raised.

AFTER SINKING Japanese ship early in World War II, a Navy submarine surfaces while crew members scan debris-filled sea for possible survivors.

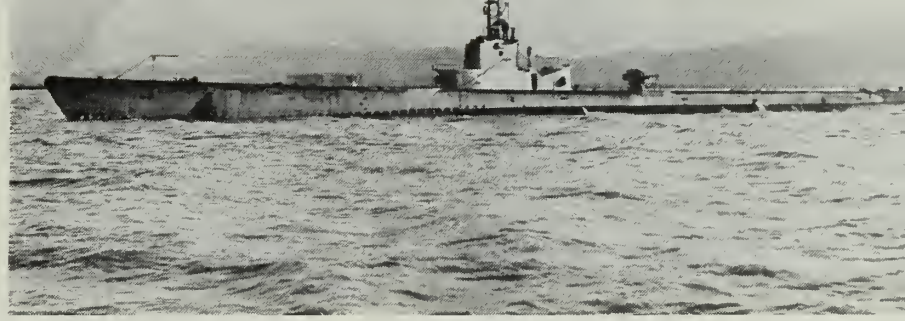
Bowfin's PUC came for a patrol (her second) in the South China Sea area which accounted for an even dozen ships, including three in excess of 5000 tons and a tanker of approximately 10,000 tons. Her NUC was awarded for her sixth war patrol, during which *Bowfin* really carried the fight to the enemy—by following three ships into harbor, then launching an attack which accounted for two of the vessels, a concrete dock and a bus carrying a liberty party.

Later in the same patrol *Bowfin* wiped out an entire five-ship convoy of the enemy which included two destroyers.

The PUC held by *Trigger* was awarded in recognition of her fifth, sixth and seventh patrols (30 Apr-8 Dec 1943). On these three patrols rapacious *Trigger* sank over 44,000 tons of enemy shipping, including five cargo vessels, two tankers and two passenger-cargo ships. During their fifth patrol *Trigger*men also had the pleasure of laying four beautiful shots into a giant new carrier. Although the flattop did not sink, reconnaissance photographs showed that she was still being repaired over a year later.

Trigger's ninth war patrol was the basis for her receipt of the Navy Unit Commendation. This patrol got off to a bad start, with SS 237 taking a terrific 17-hour pounding from six A/S vessels following an attack on her first convoy of the patrol. When she finally got back to the surface, most of her compartments were partially flooded; her bow planes, trim pump, sound gear and both radars were out of commission; her radio wasn't working and most of the auxiliary machinery was out of alignment. Patched up with baling wire and a few spare parts from *Tang*, *Trigger* continued her prowl —and wound up sending four freighters and one escort vessel to the bottom before she headed back to the States for major overhaul at Hunters Point, San Francisco.

First of the two NUCs awarded to *Seawolf* was in recognition of her fourth patrol, made in the Southwest Pacific during the period when enemy naval and air power was at its height. During that patrol SS 197 lived dangerously, tracking her targets "into treacherously confined and shallow waters to launch in rapid succession one smashing attack after another on heavily escorted convoys and vital enemy combatant units.



USS BARB (SS 220) makes her way through Pacific waters. Her combat record boasts the fact that she was the only sub to 'sink' a railroad train.

Undeterred by inevitable countermeasures, she struck daringly to sink or damage thousands of tons of shipping including Japanese cruisers and transports, a freighter and a destroyer, returning persistently to the attack despite exceptionally severe depth charging which started numerous leaks, broke her instruments and put vital machinery out of action."

Seawolf's second NUC was for her seventh patrol (in the Davao Gulf, Palau and Yap areas) during which she destroyed 11 cargo ships and extensively damaged two freighters. Having exhausted her torpedo supply, *Seawolf* used surface gunfire to demolish one ship and force yet another into the attack range of a friendly submarine.

So much for the submarines who twice found themselves in the right place at the right time—and with the right crew and combination of circumstances—to earn an award for service substantially above the high level of performance expected of Navymen anywhere, anytime.

Then there were the boats like *Tinosa* (SS 283), whose men became heroes by virtue of that selfsame "fortitude in suffering" long before their ship was tapped for a

ON THE PROWL a Navy sub searches for enemy shipping. With the sighting of its prey a peaceful scene like this becomes the site of violent action.

HEROIC ACTIONS of sub men included rescues of downed airmen. Here, PBY crew is picked up off Japan.

PUC. While under command of LCDR L. R. Daspit (now RADM), *Tinosa* (on 24 Jul 1943) found herself with a much-coveted target—a 19,000-ton whale factory which had been converted to tanker use. *Tinosa's* initial four-fish spread left the unescorted giant wallowing dead in the water, much like a mired hippopotamus. Two additional torpedoes, and the vessel belched smoke and settled slightly by the stern, but Daspit and his *Tinosans* wanted to see her sink.

The tanker's sizeable deck guns prohibited surface assault, so *Tinosa* was brought in for a torpedo attack calculated to blow the hapless vessel to bits. The next torpedo was fired off the tanker's beam, at a range of 875 yards, and was heard to make a normal run. At the moment when the sound of the torpedo's screws stopped abruptly, *Tinosa's* periscope showed a splash at the point of aim—but no explosion followed.

Seven additional "fish" were launched with the greatest care and precision—and each of them was followed by a deafening silence. Indeed, one of the torpedoes was seen to hit the tanker, jump clear of the water like a playful bass, and sink. The shooting lasted for several hours, ceasing when *Tinosa* had a single torpedo left. The results: 15 torpedoes fired, 12 hits, four explosions, one ship still afloat—and one batch of exasperated submariners determined to find out why perfect hits should turn out to be duds.

Back in Pearl Harbor, Daspit's report, *Tinosa's* sole remaining torpedo, a series of tests and some brainwork produced the answer: the torpedo exploders failed to work when "fish" were fired at a 90-degree angle because the firing pins did not strike the primers with sufficient force. When the torpedoes struck their target on an angle, the exploders usually worked. Thus, as a result of *Tinosa's* bitter experience, a modified firing pin was developed which gave our submariners reliable torpedoes—but *Tinosa's* men were still mighty unhappy about "the big one that got away."

Dozens of other ships and men could be named:

• USS *Harder* (SS 257), whose fifth patrol was tagged "the most brilliant submarine patrol of the war," had an abbreviated career (less than two years) but it cost the enemy 16 vessels totaling some 54,000 tons. His brilliant work as *Harder's* "old man" brought LCDR S. D. Dealey a Medal of Honor, Silver Star and four awards of the Navy Cross. *Harder* was awarded the PUC.

• USS *Parche* (SS 384) picked up a PUC for her first and second patrols, while her skipper, CDR L. P. Ramage (now RADM), became the first living submariner to win the Medal of Honor.

• USS *Tirante* (SS 420) was another of the "bold ones" who carried the war right into enemy anchorages. SS 420 stalked into the harbor at Cheju-do (an island off the southern Korean coast) to knock off an ammunition ship and two frigates—then made a surface getaway right under the eyes of the enemy. Her PUC sort of "came naturally"—

BACK TO THE PACK—*USS Tinosa* (SS 283) is greeted by fellow submarines as she returns to base after mission.

as did the Medal of Honor for her skipper, CDR G. L. Street.

There were Medal of Honor winners like CDR Eugene B. Fluckey, who took *Barb* into the lower reaches of Nankuan Chiang to get at a concentration of more than 30 enemy ships—totally disregarding a retirement course which necessitated an hour's run at full speed through uncharted, mined and rock-obstructed water.

And there was *Growler's* CDR Howard W. Gilmore, who sent his men below while he remained on deck to direct evasion at an attempted ramming by an enemy gunboat (despite a hail of machinegun fire). Mortally wounded, Gilmore remained topside while ordering his officer of the deck to "take her down."

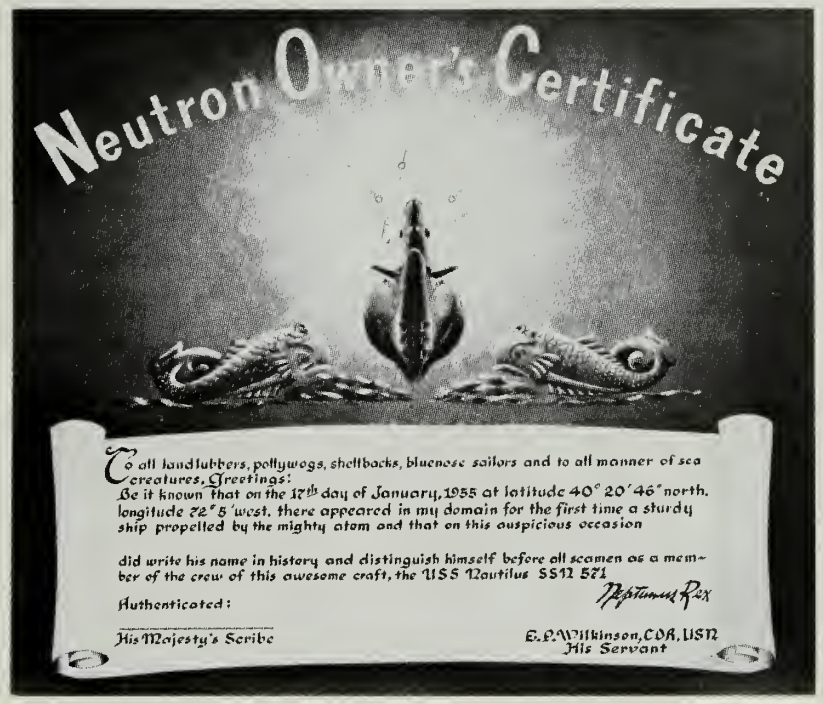
Finally, there was CAPT John P. Cromwell, USN, who sacrificed himself rather than risk capture and the danger of revealing information he possessed on our submarine strategy and tactics, scheduled Fleet movements and specific attack plans. Cromwell was commander of a submarine coordinated attack group, with his flag in USS *Sculpin* (SS 191). His undersea flotilla was moved inexorably forward despite savage opposition, to establish a line of submarines to the southeast of the main Japanese stronghold at Truk.

When *Sculpin*, rocked and battered by depth charges, sustained terrific damage and sank to an excessive depth, Cromwell authorized the boat to surface, thereby giving the crew a chance to escape. Cromwell himself stoically remained aboard the mortally wounded vessel as she plunged to her death.

There are other heroes, too, although their names are rarely mentioned in official histories of the boats they served, and the PUC and NUC citations mentioned no names at all.

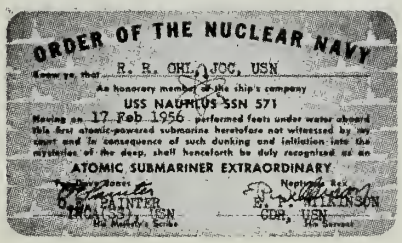
They were the men who risked —and frequently gave—their lives for the safety of their buddies; the men who sat quietly in boats caught in precarious conditions, listening to (and feeling) the explosion of innumerable depth charges. These heroes were the submarine crewmen, the specialists who operated the undersea craft—the teammates, officer and enlisted, who pulled together for the greater glory of their boats.

—Barney Baugh, JO1, USN



Plank Owners Make Way for the Neutron

The Navy of the future will be supplementing the ships plank-owner with an up-to-date counterpart if the custom established by the men on board USS *Nautilus*

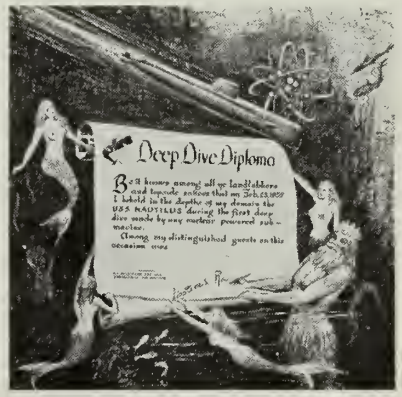


(SSN 571) is carried out. Instead of issuing the usual plank owner's certificates, the crew of the atomic sub got together and designed a Neutron Owner's Certificate.

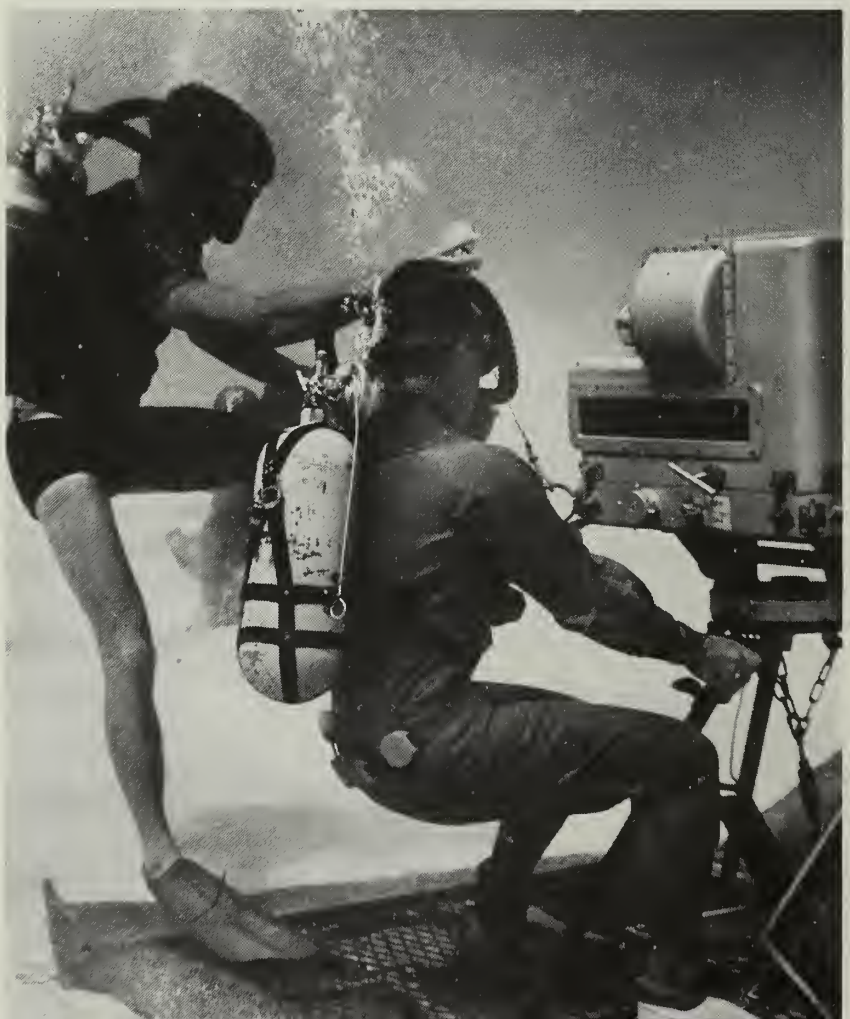
To date none of the departing crew members have presented their certificate and demanded their neutron, but in the event some did there wouldn't be much of a problem. A dictionary describes a neutron as "a minute particle of matter," and everyone leaving the boat carries some small particle of nuclear matter with him.

Crew members on board *Nautilus* also have another certificate they will prize during the remainder of their Navy careers and that is the Deep Dive Diploma, issued to the men on board during the boat's first dive.

Nautilus issues still another certificate for which the crew members are ineligible. This is a wallet-sized card which designates the bearer as an honorary member of the ship's company and is given only to men, outside of the crew, who have "performed feats underwater," while aboard the boat for a visit. These cards are in great demand by the visitors to the boat and everyone who receives them, and the title Atomic Submariner Extraordinary, carries the card with pride. Pictured here are: *Top*: Neutron Owner's Certificate; *left*, Honorary Ship's Company card; *below*: Deep Dive Diploma.



NAVY UNDERWATER PHOTOGRAPHER is snapped by team mate as they pass ship's screw on job. *Below:* Underwater movie men set up shop for Navy film.



Navy Photogs

THE MAN HAD two tanks strapped to his back. A hose from each of the tanks led to a device he held in his mouth. His face was covered with a glass-front rubber mask. He had on a black suit and his feet were covered with elongated rubber fins. In his hands he carried a small box, about the size of a football.

He was neither a man from another planet nor a spearfisherman. He was an official Navy photographer, ready to go below the surface of the ocean and take underwater pictures.

Underwater photography, although new to the average layman, has been a subject of intense study by a group of Navymen. For the past few years, the Navy has been conducting research into photography in a new medium—water. With the development of cameras suitable for underwater use, Navy photographers have shed their traditional uniforms and donned underwater gear to obtain photographs from beneath the sea providing information that was previously unobtainable or obscure. Such subjects as a ship's hull or a submarine underway, or a training film on underwater weapons or swimming have been filmed "on location."

This group of Navy underwater photographers is from the Test and Evaluation Section of the Naval Photographic Center, Anacostia, D.C. Besides testing still and motion picture cameras for underwater use, these photographer-swimmers has performed valuable operational work.

A number of training films have used footage that was shot by the underwater photographers. Some subjects were Explosive Ordnance Disposal, Mine Disposal and Underwater Swimming. You may have seen some of the work of this group, if you saw the initial "Navy Log" television program last September. Most of the underwater scenes on this program, featuring the work of an Underwater Demolition Team, were shot by the NPC group.

Whenever the NPC underwater photographers are on a job, whether it is test and evaluation or operational, the buddy system is a must for safety and maximum efficiency. At no time will a photographer be below the surface by himself.

"You get pretty close to your shipmates," stated Tom Parkinson, PH1,

Develop New Fields on Ocean's Bottom

USN, a former member of the NPC underwater photographers, now in UDT support personnel. "This is only natural, since you have to depend on one another when you're below.

"When you're in the ocean depths, it's not too difficult to forget completely what you're supposed to be doing, and begin enjoying the scenery," he explained. "When you start to wander off from your group, to see the other beautiful sights, you can be sure that one of your buddies will be there to rap your air tank and bring your mind back to the job on hand."

Most of the assignments by the NPC underwater photographers have been done between the depths of 30 to 70 feet. Since most of the work has been performed in tropical waters, protection from the cold hasn't been a problem.

"But even in tropical waters, it can get pretty chilly," stated Walter Scallan, PH1, USN, who is at present the petty officer in charge of NPC's underwater photographers.

"What we usually wear in cool waters," he explained, "is a regulation woolen jersey, diver's underwear and a pair of swim trunks. We also have on the face mask, the 70-lb. underwater "lung" and the giant fins on our feet. Naturally, we have a still or motion picture camera in a waterproof case."

When the underwater photographers go on a job, their first item of business after arriving at the site is a conference, in which the leader maps out the job to be done and the part each man will play. The project is then viewed from all angles by the swimmer photographers.

In this way, each man not only understands thoroughly his own job in the project, but also the job of each of his mates. This kind of preparation is of the utmost importance ti insure maximum safety and efficiency.

Every assignment presents a new challenge. Besides the swimming conditions, there are a variety of photographic problems faced by the underwater shutterbugs that are not normally encountered on the surface.

In one of the assignments for example, two of the photographers were towed underwater while harnessed to a submarine. Their job: to photograph a torpedo being fired. Another time, two of the underwater photographers were anchored close to the bottom and photographed a ship as it passed over at about 20 knots.

Although most of the jobs performed by the Naval Photo Center's underwater photographers are classified, they always try to shoot a certain amount of footage, and stills, for library and reference purposes.

Assignment as an underwater photographer at NPC is a much sought for billet, but there are only a few openings. Every man chosen is carefully screened. Besides being a top notch photographer, the man must be in excellent physical condition. In addition, he must be a graduate of the Underwater Swimmer's School at Key West, Fla., where he has learned to use and operate all types of underwater breathing apparatus and swimming gear, and must become an expert in both day and night swimming.

At present, there are more than two dozen applicants for the next opening on the team in spite of the fact that the job does not entitle the underwater photographer to hazardous duty pay.

However, the men at present assigned as underwater photographers don't worry too much about the extra pay, since they feel they are in choice billets. Their duty is interesting and they are getting a chance to round out their photographic skills in an activity that is just beginning to attract popular attention.

Although your chances of assignment as an underwater photographer might be slim, there's nothing to stop you from becoming an underwater photographer in your spare time. Many ships and stations have spearfishing or skin diving clubs, which you could join, and could later include underwater photography in your repertoire.

If you want to, you can follow the example of four sailors of the

GRADUATES OF NAVY'S underwater photo school must know how to use all types of underwater equipment. Here, cameraman walks to shooting location.

cruiser USS *Worcester* (CL 144). So enthusiastic were they on the subject, that they joined together and formed an underwater photography club.

It all started with Nat Fain, SN, USN, a photographer on board the *Worcester* He wanted to photograph what he'd seen in the ocean depths on his frequent spearfishing ventures. He had all the equipment for underwater fishing, but the problem of photographing deep sea life in its natural habitat still remained for him when he reported for duty on board *Worcester*.

During the course of his regular duties, Fain became acquainted with three other underwater enthusiasts in *Worcester*: Alex Scheflo, ME2, USN, Bob Provencher, FP2, USN, and Bob Brown, DC2, USN.

The four men began batting the subject around, and before long, their talking turned to planning. Using a combination of patience, determination, their Navy-taught skills, and work during liberty hours, the men designed blueprints for a watertight unit that would withstand tremendous pressures and float, yet contain a camera, electronic flash unit and batteries.

They constructed a watertight shell of bronze, complete with control handles extending from the shell, with which they could regulate the focusing dial, aperture opening, lens speed and wind the film They lacked but one thing: a good place to try out their homemade underwater camera.

Last summer when *Worcester* sailed to the Mediterranean to join the Sixth Fleet the men got their chance. Donning their paraphernalia of swim fins, underwater lungs, spear guns and knives, they searched for rays, eels, and other sea life while Nat Fain, using the underwater camera the four had designed and built, recorded on film their adventures under water.

Their subsurface exploits also included photographing marine archaeology in many Mediterranean ports. In one undersea exploration at the island of Rhodes, Greek amphorae (jugs or vases) were found and photographed. The head of Archaeological Research for the Dodecanese Islands proved them to be relics from second or third century B.C.

—Rudy C. Garcia, JOC, USN

Here Are Some Do-It-Yourself

LIKE THE FOUR MEN from Worcester, you, too, can become an underwater photographer without too much difficulty. If your ship or station now has a skin diving or spearfishing club, it will make things easier for you.

First, you should qualify as a Navy first class swimmer. Most skin diving and spearfishing clubs have some very rigid qualification tests as a prerequisite to joining. These clubs also have stringent safety rules which might be well for you to review.

Safety and advance planning will save you time, money and worry and will insure better results. There are several books on skin diving, spearfishing and underwater protography which you could read with profit. Many of them are available in the larger ship and station libraries.

Here are some ideas which might help you to begin building a watertight box for your underwater camera.

"It would be best," advises undersea photographer Walt Scallan, "to get a low-priced camera. In this way, if you do happen to foul up, the financial loss won't be too great. And if you're successful, you can safely advance to more high-priced equipment."

Try to get a low-cost wide-angle lens. This type lens has a number of distinct advantages over the standard lens. A wide-angle lens used underwater will give the same angle of view as a standard lens will when used in the air. A standard lens used underwater will react as a low-power telescopic lens would in the air.

Another advantage of the wide-angle lens is that for a given image size, the object is closer, partly avoiding the fuzziness of the image caused by light scattering. Also, the wide-angle lens has a great depth of field as compared with a standard lens, which must be operated underwater at wide aperture, where depth of field is lowest.

Just about any type camera will work underwater under some conditions. However, when selecting your camera, you should bear in mind such items as ease of operation, fast lens, short focal length and large number of exposure per film load.

Another important thing to remember is this: the larger the negative size, the larger will be the camera and even larger will be the watertight camera enclosure. It is not necessary to have a large negative to obtain a good photograph.

A good, all-around camera is a 35-mm, with a wide-angle lens. Besides being relatively simple to operate underwater, it usually carries a film load of 36 exposures and you should be able to shoot just about all your pictures without refocusing.

You don't need any special type of film for underwater photography. Normal panchromatic film, such as Tri X or Super XX should meet most of your requirements. If you want color pictures, you might try the outdoor speed. The big disadvantage of all color film, however, is its slow speed. A new type "super speed" color film has been placed on the market and if it works as advertised, it should greatly simplify your underwater color photography.

When shooting underwater, you still have the two basic types of light sources: natural and artificial. If a heavy sea is running, you lose a much greater amount of light than when the sea is calm. You should compensate by increasing your exposure.

Occasionally you get a blue or blue-green haze underwater which you can reduce somewhat by using a blue elimination filter with non-color film.

When shooting color film, you almost have to use a filter or filters, since so many colors underwater reproduce in a pastel shade. Color correction underwater is still a very controversial subject and you'll get as many arguments as there are underwater photogs.

A good hint, for taking both black and white and color, is to shoot as many close-ups as possible. Also, make

SHIPMATE photographs A. Scheflo, USS Worcester (CL 144) as he explores old ship under Med with a homemade underwater camera box.

ips on How to Rig a Camera for Underwater Picture Taking

it a practice to take light meter readings with the filter you intend to use covering the photocell. For the best exposure, use the light meter reading given with the published daylight indexes for the film.

If you use a rangefinder, it will give you the exact distance from subject to lens. To the human eye, however, objects underwater appear one-quarter closer. The camera lens "sees" what the human eye does, so if you use a rangefinder underwater, you'll have to compensate for the camera's limitations by cutting the focus down one quarter of the distance indicated.

You'll either have to buy or build a waterproof case for your camera. And if you're intending to use electronic flash or flash bulbs, you'll have to make a waterproof case for that, too. For best all around handling, you might want to get the waterproof case to hold both the camera and flash and battery.

If you are anxious to test your skill, you can quickly make a watertight enclosure by placing a camera, preferably a simple box camera, inside a face mask and cover the back of the mask with a rubber gauntlet glove. To insure further the watertight integrity of this enclosure, place a rubber or metal band around the face mask where it is joined by the rubber glove. The camera controls can be manipulated merely by sticking your hand through the rubber glove.

For a more permanent case, it will take time, tools, a bit of cash, and some ingenuity if you plan to build one yourself. A number of types of materials can be used for building such a case. The four men from *Worcester* used sheet brass. You could also use copper, plastic, or even wood.

For the lowest cost and ease in construction, you might try wood. A good hardwood, such as cedar, oak or mahogany is suggesetd.

But if you're not too much of the "do it yourself" type, you can purchase a commercial watertight box that can handle a variety of cameras. Cases for various cameras on the market are available at prices that aren't too high.

The wood you use should be at least an inch thick. The size of the enclosure, naturally, will be determined by the size of your camera. On the front of the watertight enclosure, you can use ordinary automobile safety plate glass. Use rubber gaskets at the edges where the glass and wood meet.

In the back of the enclosure, you have to have an access port through which you put your camera into the box. A metal plate, such as brass, can be used. Again, you have to use

UNDERWATER PHOTO hobbyists swim near bottom while off duty looking for Greek relics and sea life.

gaskets to seal the edges. ("O" ring gaskets are best.)

Use a machine saw to cut the wood to your specifications. For the final assembly, use both animal glue and brass screws countersunk to fit flush. Use outdoor enamel to paint both sides of the box.

If you can avoid it, don't affix your camera permanently in the box. But the camera must be secure in the box, even if you turn somersaults. Instead of bolting the camera to the box, you can place blocks to wedge camera in.

Once you've built the box, you must decide which camera controls you'll make available outside. The fewer openings you have in the box, the more assurance you'll have that it will be watertight. On the other hand, the more controls you have available, the more versatile the unit.

Some controls are absolutely necessary. In the order of their importance, they are: 1) shutter cock and release 2) film reset 3) focus 4) aperture setting 5) shutter speed. The first two, of course, are essential. If you have outside controls for the first four items, you'll have a good unit.

Another thing you'll need on the box is a viewfinder. A simple wire frame at the front of the box with an aiming post at the back should be sufficient.

If you're planning to use flash bulbs for lighting, you can change bulbs underwater since they will withstand as much pressure as the diver. But the usual 3-volt flash gun might not be too dependable underwater since seawater is a conductor and could drain off much of your power.

It is recommended that you devise a higher voltage system together with a condenser. A 22½-volt battery with the condenser should give you enough power to set off the bulb, even though you may have lost some of the voltage through leakage.

Build this battery-condenser circuit right into the watertight box and have the two leads coming through the box. Make sure you attach the ungrounded lead to the small copper bead that serves as the base contact in the bulb socket. The grounded lead from the battery-condenser is attached to the socket surrounding the bulb at the top of the base.

The leads coming from the battery-condenser circuit inside the box can be extended to serve as an extension cord. This is highly desirable since you'll want the light source in underwater photography as close to the subject as practicable.

If you had the flash bulb attached to the camera, half of the light intensity would be lost in just reaching the subject. What light remained would again be reduced by one half on the trip from the subject to the camera.

Once you've assembled your complete rig, you'll want to make a few test runs. An excellent place for this is the swimming pool. In the relative safety of a pool, you can test your photographic equipment, checking the controls, the field of view, the way the lens will react underwater and the over-all watertight integrity of the camera and flash equipment.

The undersea photographer should spend a good deal of time in the swimming pool, until the operation of his underwater equipment becomes almost second nature to him. Safety is the most important factor. Anything that might possibly lead to difficulty under the sea, which can be discovered and remedied in the swimming pool, will make your underwater photography that much safer and more enjoyable.

And like the underwater photographers at NPC, you should never go on an underwater photography trip without having one man in the water with you, preferably a friend!

DO-IT-YOURSELF *Worcester* men pose for photo before submerging with camera. (l. to r.) B. Brown, A. Scheflo, N. Fain, and L. Stavalone.

LETTERS TO THE EDITOR

Claim for Lost Clothing and Pay

SIR: How can I draw back pay and a full seabag allowance which has been due me since 1942? Here's the sad story:

I was serving in USS *Astoria* (CA 34) when she was sunk off Savo Island on 9 Aug 1942. Naturally, I lost all my things, including my pay accounts (each man carried his own at that time). Although my pay began again on 10 Aug 1942, I had on the books pay as a seaman first class for the months of June and July and pay as GM3 for the first nine days of August.

A couple of days later, I filed a claim for the lost clothing and for the pay I had on the books. To this day, however, I have not received this money, and I've been told that the statute of limitations now prevents me from collecting.—A.B.B., GM1, USN.

• *In view of the time elapsed since you became eligible to submit a claim and the fact that any reimbursement should have been charged to appropriations which have now lapsed, it is suggested that you submit your claim for the clothing and personal effects and arrears of pay to the U. S. Navy Finance Center, Cleveland 14, Ohio, for further transmittal to the General Accounting Office. The claim should show the following information taken from the records: A claim for personal effects and clothing lost on* Astoria *was approved by the Commanding Officer, Receiving Ship, San Francisco, Calif., on 12 Jan 1943. You drew C&SS in the amount of $27.55 on 15 Jan 1943.*

There is no record in the General Accounting Office or in the U. S. Navy Finance Center of the submission of a claim by you for arrears of pay or for the balance of $89.06 remaining due on the claim approved by the CO. Receiving Ship, San Francisco.—ED.
Francisco.—ED.

BMs and MMs in the Navy

SIR: Would you please settle an argument between a group of USS *New Jersey* (BB 62) sailors? The question is: Are there more boatswain's mates than machinist's mates in the Navy?—C.S., MM3, USN.

• *As of 31 Jul 1955, there were 17,972 machinist's mates and 20,807 boatswain's mates in the Navy. These figures are taken from "Military Personnel Statistics" (NavPers 15658) and include strikers, CPOs and POs in both the Regular Navy and Naval Reserve.*—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D. C.

HMs in Submarines

SIR: Can you tell me how hospital corpsmen get into submarine duty, and what pay grades are eligible for such duty.—L.R.G., GM1(SS), USN.

• *Hospital corpsmen (HM) in the pay grades of E-5, E-6 and E-7 may apply for submarine training if they meet the following eligibility requirements: 1) have 24 months' obligated service commencing with the convening date of the class to which ordered; 2) be a volunteer for sea duty in submarines; 3) have a minimum combined ARI and MAT or ARI and MECH score of 100 (waiver of 1 to 5 points may be granted if your GCT is 55 or above); 4) be physically qualified; 5) have demonstrated evidence of maturity and emotional and mental stability.*

No age limits have been established for submarine duty, since age often does not accurately measure a man's stamina and flexibility. However, when a man over 30 requests sub duty, his commanding officer must comment upon his stamina and flexibility.

In addition to the requirements listed above, certain other points must be considered in determining eligibility for submarine duty. For example, personnel in a transient status may not apply, nor may certain personnel enrolled in naval schools. Your personnel officer and BuPers Inst. 1540.2A are your best sources of information on procedure for submitting a request.—ED.

Seaplane Duty

SIR: I'm in an aviation rate and am very interested in the possibility of nuclear-powered seaplanes. Could you tell me if it is possible to volunteer for any future work that may be done, or which is now planned, in that field?—J.S.B., AEC, USN.

• *At present there is no need for volunteers for this line of work. However, when such a need arises, volunteers will be solicited through Fleet commanders and official channels. So keep your eye peeled, Chief, and in the future you may get in the program.*—ED.

Going into Battle

SIR: It is my understanding that included among the preparations for a ship entering battle was a regulation that crew members in men-of-war must change into clean clothes from the skin out—after taking a shower—as an aid in cutting down the dangers from wounds. By the same token ships in combat zones required frequent bathing and uniform changes.

Can you tell me if any such regulation was in effect, and where it can be located in a published text or manual?—J. S. Jr., Phila., Pa.

• *During World War II certain major Fleet commands recommended that men should be offered the opportunity of taking a shower and changing clothing before engaging in actual combat, so it is quite possible that the regulation to which you refer could have originated from your commanding officer or the medical officer of the ship or activity where you were stationed.*

Several publications such as "The Bluejackets' Manual" and the "Handbook of the Hospital Corps" encourage the frequent changing of clothing; however, no set regulation could possibly have been adhered to under emergency or other conditions where water was scarce, or clothing was possibly hard to obtain.—ED.

Attache Duty in Italy

SIR: I have requested assignment to naval attache or naval mission duty in Italy. How are men selected for this type billet, and how many men are on the list for that duty ahead of me?—J.E.W., RM3, USN.

• *At present there are six RM3s, including yourself, on the Naval Attache and/or Missions Eligibility List for duty in Italy. Personnel are selected by qualifications and the best qualified man on the list is selected to fill a billet as the need arises. LATE FLASH! Your orders to Italy just came through*—ED.

Commissioning of Saratoga

SIR: Can you tell me the commissioning date of the new USS *Saratoga* (CVA 60), and what her home port will be?—W.G.W., QM1, USN.

• Saratoga, *launched 8 Oct 1955, is tentatively scheduled for commissioning sometime in mid-year 1956, with the exact date not yet set. At this time she has not been assigned a home port.*—ED.

Per Diem and Quarters

SIR: It is my understanding that the Navy will provide "bed and board" for its officers and men, or an allowance therefor. However, when I recently put a ship out of commission I spent about 10 weeks at a shipyard 100 miles away from the decommissioning homeport. The ship was completely dead with no facilities for the officers and crew. Berthing facilities were limited for the duty officer and a six-man police duty section. The crew was housed at the local Coast Guard barracks, but there were no government quarters or messing facilities available to the officers. I requested per diem for this 10-week period but it was turned down. Am I not entitled to per diem and what are the regulations that cover this particular type of situation?—R. R. S., CHBOSN, USN.

• *Sorry, but you are not entitled to per diem. Officers are paid a basic allowance for subsistence of $47.88 per month and are not entitled to an additional allowance for subsistence unless they are on temporary duty.*

The regulations governing the situation where quarters aboard ship are uninhabitable are contained in Par. 044036-1*d*, *"Navy Comptroller Manual." When a squadron or division commander of a group of ships certifies that quarters aboard a ship are uninhabitable in accordance with the conditions outlined in Para.* 044036-1*d*, *the following action may be taken to provide quarters:*

Quarters for officers with or without dependents may be hired at government expense whenever government quarters are not available; or, when the hiring of quarters is not practicable the officers without dependents may provide themselves with quarters for the period and will be reimbursed for the cost involved in an amount not to exceed the basic allowance for quarters applicable to their pay grade for an officer having no dependents.—ED.

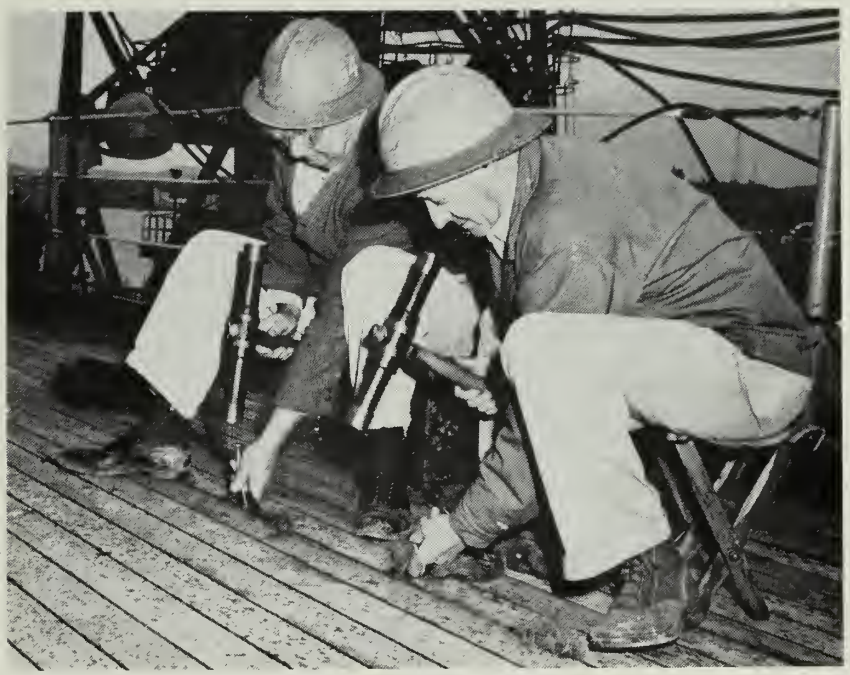
Duty in Forrestal-Class Carriers

SIR: The following question has come up many times in discussions among the crewmen of USS *Bennington* (CVA 20). Does the Bureau plan to request volunteers for the other three *Forrestal*-class carriers? If so, will members of the Pacific Fleet be eligible for assignment to these carriers?—D. S. J., SN, USN.

• *You are probably referring to Alnav* 22-55 *which states that personnel reenlisting would be given priority for assignment to* USS Forrestal *if requested and their service could be utilized in that ship.*

New construction billets, in so far as practicable, are filled from assignment sources available to the Bureau. After these sources are exhausted, the Fleet is drafted for the balance of the crew. Only the Atlantic Fleet is drafted for ships being constructed on the East and Gulf Coasts and likewise only the Pacific Fleet is drafted for ships being constructed on the West Coast.

About the only possible way you have of obtaining duty in a Forrestal-*class carrier is on reenlistment, through exercising Option three or five of BuPers Inst.* 1306.25*B*.—ED.



OLD TIME CAULKERS work on teak deck of *USS Baltimore* (CA 68) at Mare Island Naval Shipyard. The *USS Baltimore* goes into mothballs this Spring.

Shore Duty for HMs

SIR: In reading the November issue of ALL HANDS, I could not find Hospital Corpsmen listed on the shore duty eligibility list. Was this an oversight or was the HM rating left out for a special reason—W. F. H., HM1, USN.

• *It was not overlooked. Hospital Corps personnel, while maintained on the shore duty eligibility list, are subject to specialized detailing and information on their standing is not adaptable to the chart used for other ratings.*—ED.

No Advancement in Transit

SIR: I will be in transit at the time my advancement to CPO becomes effective. Can I report to any naval activity to be advanced? I find nothing in the books which says this can't be done.—R.A., YN1, USN.

• *Commanding officers can effect advancement only in the case of personnel attached to their commands. Therefore, if you are transferred before your advancement date, it will be necessary for you to wait until you report to another command before your advancement may be effected. The effective date of advancement, however, will remain the same.*—ED.

Steward's Specialty Mark

SIR: I am interested in the history of the specialty mark, particularly that worn by stewards in the Navy. Do you have any information on why the half moon is worn and what it stands for?—M. E., SDC, USN.

• *In* 1866, *there was added to the uniform of the enlisted men the first specialty marks in the history of the Navy. A master-at-arms had a white five-pointed star; a coxswain, crossed anchors; captain of the top, an open figure-of-eight knot; sailmaker's mate, a fid placed vertically. From this you may guess that specialty marks in the Navy originally were a representation of the instrument used in performing one's duty. Thus the master-at-arms as the police officer of the ship had the star of authority; the quartermaster used the binoculars; the gunner's mate the cannon; the carpenter's mate the broad axe, and the sailmaker's mate the fid. This custom of having the specialty mark represent as nearly as possible the tool used in a particular rating continues down to the present day with one exception, that being the cook originally had as a specialty mark a ring typifying one of the rings found in the lid on the galley stove. This ring, commonly called by the men, the "doughnut" was subsequently changed to the crescent, and this is the mark the cook or steward wears today. However, a wild guess on the part of several people asked this question is that the crescent might possibly represent the crescent shaped roll which has been a choice bakery delicacy for more years than the steward rating has been established in the Navy.*—ED.

H. A. MONICAL, BM2, USN, paints an 'E' on his Assault Minesweeping Boat after his unit, Mine Division 111, won MinePac over-all excellence award.

Statistics Tell a Story

SIR: U.S. Naval Guided Missiles School, Dam Neck, Va., is in a rather unique position but, during the period 1 Jul 1955—1 Jan 1956, the following statistics tell a story.

Average on board enlisted count—184; number of expired enlistments — 19; number of reenlistments — 16; average term of reenlistments—5.75 years; total reenlisted time — 92 years; reenlistment rate—84.21 per cent.

Can anybody top this?—A.A.S., CDR, USN.

• *How about it? If you can, drop us a line?*—ED.

Specialty Mark for FTs

SIR: According to *U. S. Navy Uniform Regulations* both the rangefinder and the gun director specialty marks were authorized to be worn by fire control technicians until the abolishment of the fire controlman rating. Thereafter I understand that only the gun director specialty mark is authorized to be worn.

At the time the rating of aviation fire control technician was established, the specialty mark of a rangefinder with wings was chosen. The rangefinder was retained as a specialty mark since, it was said, it is the traditional symbol of the fire control petty officer and his trade.

In view of the foregoing, I would like to ask if the gun director specialty mark will be retained permanently for fire control technicians and if there is any possibility of the rangefinder being reinstituted as the traditional symbol of the Navy's fire control technicians.—D.F.K., FTC(SS), USN.

• *Perhaps you have misread "Uniform Regulations." A footnote to Article 1202.2(a), page 12-5, says this about the status of fire controlman and fire control technician: "The ratings of Fire Controlman and Fire Control Technician are being combined into that of Fire Control Technician. These men will wear the fire controlman's specialty mark. Either mark may be worn until the rating of fire controlman is permanently abolished." According to that, the rangefinder will eventually become the specialty mark for fire control technicians.*—ED.

Mess Privileges of POs

SIR: There is an uncertainty on this station concerning messing privileges of first class petty officers. Can you give me the reference which tells when a first class petty officer has a "head of the line" messing privilege if a separate mess is not available?—R.R.B., QM1, USN.

• *The administration of a military organization permits and encourages commands to use privileges to enhance prestige and to reward personnel for achievement. There are many examples of long-standing which aptly demonstrate this fact. Here are a few examples:*

Staggered expiration of liberty and commencement of liberty for CPO, POs, non-rated men.

CPOs have their own mess tables or mess compartment in many messes, with additional services provided.

The "head of the mess line" privilege is another of these privileges authorized locally which are accorded various groups (in the case you mentioned it applies to all POIs) to enhance their prestige and as a reward for their having attained that rate. It is another means for competent authority to demonsrate the respect it holds for various rates.—ED.

Transfer Orders

SIR: The PN in our office says that upon transfer of enlisted personnel, the advance copy and the carbons of the Standard Transfer Orders must be certified to be a true copy.

My argument is that the only copy needed to be certified, if any, is the one the preparing command makes and keeps as a record to show that the man has received his orders and fully understands them.

Art. C-5404 (Para 1) of *BuPers Manual* does not state whether the advance copy or the carbons have to be certified. All that I have found on this subject states that the preparing command forward one legible copy to all commands concerned. Who's right?—W.B.K., YN1, USN.

• *Actually, you're both off base on this question. The only requirement for "certified to be true copies" of enlisted transfer orders is for the payment of claims for transportation of the individual and dependents, and the transfer of household effects and automobiles. Commanding officers may require copies to be certified to be true within their commands. However, this is done at his discretion.*—ED.

Toledo's Record

SIR: Could you check the records and determine if I am authorized to wear the Korean Presidential Unit Citation for the time I served on board USS *Toledo* (CA 133). I was on board from September 1952 until February 1953. Also, could you give me a brief run down on *Toledo's* history from her commissioning until the end of the Korean war?—H.R.B., LT, USNR.

• *You rate the ribbon, as your ship earned one Korean PUC for the period between 8 Sep 1952 until 28 Feb 1953, which coincides with your service. You and your shipmates in* Toledo *might also like to know that there were two other periods of service listed in this award of the Korean PUC to your ship. Those were the periods of 24 Jul—23 Oct 1950 and 16 Apr—13 Nov 1951.*

As for her history, Toledo *was placed in commission on 27 Oct 1946. Following her shakedown cruise she made a trip to Tokyo, via the Mediterranean. After a short time operating out of Tokyo she went on to San Diego, Calif., for yard availability and then returned to the Far East. That was a routine tour with no trouble and she returned to the States just before the Korean conflict developed.*

Toledo *was one of the first ships in the U.S. to set sail for Korea after the fighting began and hit Yangdok in her first bombardment against an enemy. After working over the North Korean coastline she took part in the Inchon landing and bombardment of Wolmi Do.*

Toledo *and her crew exploded mines,*

laid down shore bombardments and provided call fire for the troops ashore. She and USS Rochester (*CA* 124) *provided the only heavy fire support available to the Army in the capture of the Kumod Peninsula.*

On her second tour in Korea, Toledo *ranged up and down the Korean coast lending aid wherever needed. She moved as far north as Chongjin and Songjin with all guns active.*

On at least two occasions her helicopter brought back downed American flyers and in 1951 *she recorded several near misses from shore batteries of Communists who immediately regretted their shooting, as* Toledo *replied in kind and knocked them out.*

After another brief respite in the States the ship returned to Korea for the third time. Most of the patrols were classified as "routine," but to the crew they meant months of endless patrolling and endless shelling of Korea. In October 1952 *she got her closest call when enemy shore battery shells straddled the ship, but after* 48 *rounds of five-inch shells had covered the shore battery the incident was closed.*

All told, Toledo *earned six battle stars during the fighting, in addition to her Korean PUC, which is a fine record. She also earned the China Service Medal.*

Any of her crew interested in a more detailed history should drop a line to the Division of Naval History, Ship's History Section, Navy Department, Washington 25, *D.C. They'll send a complete history upon request.*—ED.

Classification on MOP Deadline

SIR: I recently read that the Korean mustering-out pay will cease in July 1956. I reenlisted on 14 Aug 1950 for a period of six years and at that time received $100 MOP for the less than 60-day period from 26 Jul 1950 to 14 Aug 1950. According to current directives, I will become eligible for the other $200 at the time of my discharge on 14 Aug 1956. Are there any special arrangements for personnel in my case to submit claims after July 1956?—K.C.H., ATC, USN.

• *The limitation of* 16 *Jul* 1956, *placed on the submission of claims for mustering-out pay on the basis of service in the Korean conflict, pertains only to mustering-out pay incident to a discharge which occurred before the enactment of the Veterans' Readjustment Assistance Act of* 1952, *approved* 16 *Jul* 1952. *This limitation upon the period for submission of claims does not apply in the case of otherwise proper entitlement to mustering-out pay payable on discharge from an enlistment such as yours, since the date of discharge occurs after* 16 *Jul* 1952. *Therefore mustering out pay due you would be payable at discharge.*—ED.

Promotion Requirements

SIR: I have the following questions in regard to correspondence course exemptions for promotion and sea duty requirements:

1. If an officer completes all the correspondence courses for promotion to LCDR, can he receive exemption credit for other correspondence courses taken as a LT for CDR? For example, a LT completes a course which is good for one grade exemption—from LCDR to CDR—but is not required for promotion from LT to LCDR. Will this exemption credit still hold good if and when he is selected for CDR?

2. If a LT has completed the correspondence course "Navy Regulations" in 1951 as a LTJG, but did not use this course as an exemption when promoted to LT, will he be required to retake the course again for promotion to LCDR?

3. Concerning sea duty requirements for promotion purposes, what is the selection board policy if a LT does not have the required two years of sea duty in grade? Will the selection board consider this officer, or will it automatically pass him over?—G. H. L., LT, USN.

• *The answer to your first question is affirmative. Completion of a correspondence course earns exemption if it was completed in your present or immediately previous grade. Hence, an appropriate course completed as a LT is applicable to the promotions from LT to LCDR and from LCDR to CDR.*

The answer to your second question is in the negative, since retaking a course for the second promotion is not required, even if the officer used the course as an exemption in the earlier promotion.

As for your third question, the fulfillment of sea duty requirements is determined by the Chief of Naval Personnel prior to appointment of an officer to a higher grade. It is not a determination made by a selection board. The lack of sea duty assignments could influence the action of a selection board, but it would not operate automatically to cause a failure of selection. An officer selected for promotion to a higher grade who has not fulfilled the sea duty requirement cannot be appointed until that requirement has been met. At such time as the full two years are completed, an appointment would be made with no loss in precedence or pay.—ED.

HIGH IN THE SKY this free flight balloon will drift across ocean, recording weather info while radio charts course.

Active Duty in Fleet Reserve?

SIR: After twenty years of service, if I should transfer to the Fleet Reserve and later desire to request active duty, would it be granted? How long would I have to remain in the Fleet Reserve before I would be eligible to request active duty and what procedure would I follow?—W.S., BTC, USN.

• *If you are contemplating retention on active duty it is suggested that you do not request transfer to the Fleet Reserve. However, a Fleet Reservist may submit a request to the Commandant of his naval district for active duty orders at any time. Once a Fleet Reservist has been released to inactive duty, however, he may be recalled to active duty only if in an "open" rate. At the present time your rate, BTC, is a "closed" rate and if you transfer to the Fleet Reserve and are released to inactive duty, your Commandant could not recall you. However, you could transfer to the Fleet Reserve and make application to your Commanding Officer for retention on active duty. Information concerning retention on active duty in cases of members transferring to the Fleet Reserve is contained in BuPers Inst.* 1001.21 *and BuPers Inst.* 1910.5*B.*

"Open" and "Closed" rates are governed by the needs of the service, and it is possible that at some future date your rate may be an "open" one, and you would have no difficulty in being recalled to active duty.—ED.

Roundup on Ship Reunions

News of reunions of ship and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, All Hands Magazine, Room 1809, Bureau of Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• *Commanding Officers, Destroyer Escorts, WW II*—The Seventh annual DE Skippers' Reunion and Dinner will be held at the New York Yacht Club, New York, N. Y., on 12 Apr 1956. Further information can be obtained by writing to A. Goodwin Cooks, Room 200, 67 Broad St., New York 7, N. Y.

• *Eighth Beach Battalion* — Shipmates of the Eighth Beach Battalion will hold a reunion in Montreat, N. C., on 6, 7 and 8 Apr 1956. Former members may write to Clifford L. Legerton, 263 King St., Charleston, S. C., for additional information.

• *19th Naval Construction Battalion*—The annual reunion of the 19th Naval Construction Battalion will be held in New York City in September, 1956. For further information contact Herbert McCallen, 655 East 14th St., New York, N. Y.

• USS *Boston* (*CAG* 1) — Former members of this ship interested in attending a reunion to be held in Boston, Mass., on 16 Jun 1956, should write to Ed Fitzpatrick, 200 Amory Street, Jamaica Plain, Boston, Mass., for additional information.

• USS *Chicago* (*CL* 29)—The 36th annual reunion dinner for 1917-1920 crew of this ship will be held in Philadelphia, Pa., on 14 Apr 1956. For reservations contact Paul A. Kline, 17 West Park Ave., Oaklyn, N. J.

• USS *Helena* (*CL* 50)—Shipmates who served on board *Helena* will hold their second reunion in the Hotel Jefferson, St. Louis, Mo., on 4, 5 and 6 Aug 1956. Those interested should contact Terence T. Dempsey, 624 Morris Ave., Springfield, N. J.

• USS *Oklahoma* (*BB* 37)—The USS *Oklahoma* WW I and Commissioning Crew Annual Reunion will be held in the Sylvania Hotel, Philadelphia, Pa., on 5 and 6 May 1956. Write to E. H. Lutz, 673 Lindley Road, Glenside, Pa., for further information.

• USS *Valley Forge* (*CVS* 45)—A reunion is being planned for all plank-owners of this ship. For further information contact D. R. Rice, QM1, U. S. Navy Recruiting Substation, Navy Post Office Bldg., 56 - 71 Mansion St., Poughkeepsie, N. Y.

• USS *Portland* (*CA* 33)—Former members of this ship interested in holding a reunion with time and place to be decided by mutual consent should contact John Octon, Larned, Kan.

• *American Nurses' Association* — Navy Nurses (Regular and Reserve) are invited to attend a breakfast to be given at 0730, 16 May by the ANA at the Congress Hotel, Chicago, Ill. Tickets may be purchased in the Exhibition Hall Lobby of the Conrad Hilton Hotel, or at the Navy Nurse Corps exhibit.

• *91st Seabees*—Former members of this unit will hold their seventh annual reunion on 2 and 3 Jun 1956 in the V.F.W. Hall, Sterling, Ill. Contact R. C. Nichols, 511½ Fifth Ave., Sterling, Ill., for further information.

• *Submarine Veterans of WW II*—This group will hold its second annual reunion at the Ambassador Hotel, Atlantic City, N. J., on 28, 29 and 30 September. Further information can be obtained by writing to Hugh Trimble, 1533 Luzerne St., Bethlehem, Pa.

• *Tufts Navy Class of June 1946*—The 10th year reunion of those members of the Tufts University Naval Training Unit who were commissioned in June of 1946 will be held from 7 through 10 Jun 1956, at Tufts University, Medford, Mass. Additional information may be obtained from Fred Weiss, 102-05 86th Ave., Richmond Hill 18, N. Y.

• USS *Advanced Base Sea Dock-2*—Members of this ship will hold a reunion on 27 Apr 1956 in New York City. For details, write to R. E. Ferrara, 3970 51st St., Woodside, N. Y.

• USS *Bassett (APD 73)*—Former crew members will hold a reunion on 2 Jun 1956 in Boston, Mass. Contact R. E. Ferrara, 3970 51st St., Woodside, N. Y.

• USS *Butler (DD 636) and (DMS 29)*—The second reunion of former shipmates will be held in Cleveland, Ohio, during the summer of 1956. The exact date and location of this reunion can be obtained by writing to Ollen E. Peters, Orchard Lake, Mich.

• USS *QUINCY (CA 71)* — Crew members who served on board this ship will hold their fifth annual reunion on 17, 18 and 19 Aug 1956 in the Biltmore Hotel, New York, N. Y. Write to Ed Moore, 173 Carlton Terr., Teaneck, N. J. for further information.

• USS *Pawcatuck (AO 108)*—Former officers and crew of this ship interested in holding a reunion should contact James W. Parks, 406 South Second St., Alhambra, Calif.

Duty in New DDs

SIR: Sometime back I put in for duty aboard USS *Forrest Sherman* (DD 931) after reading a notice that men were wanted on board this ship. Now I see that she is in commission and I haven't heard a word as to whether I'll be ordered to *Sherman* or not. I would like to go to a Navy school but wouldn't want that to cause me to miss getting on board the new destroyer. Can you tell me if there is any chance that I will be ordered to the ship or would I be wiser to go to school?—E.W.C., FN, USN.

• *The allowance of* Sherman *has been filled and there isn't much chance that you'll get her. However, there are similar ships now under construction and if you are on the ComServLant waiting list, you stand a good chance of getting a new DD in the future.*

If you are not on this list and desire to have your name placed on the waiting list for that type of duty, you may submit a request in accordance with ComServLant Inst. 1306.5, *which your ship's office has on file. Take a look.*

As for the school angle, that is a matter strictly up to you and your division officer. We suggest you talk it over with him and your Division chief. They'll give you the straight scoop.—ED.

Drawing Pay

SIR: Are there any regulations concerning the amount of money that a man can "let ride" on his pay record, or is he required to draw a certain amount of his pay each pay day?—J.A.F., PN1, USN.

• *All Navy personnel are paid in full on* 30 *June and* 31 *December so that unpaid amounts will not be carried forward to the new Military Pay Record. You are not, however, required to draw your pay at any time other than the end of these pay record periods.*—ED.

Lighter-than-Air Training

SIR: I am a chief boatswain's mate interested in attending a lighter-than-air training school, but have not been able to find any information on such a school. For this reason, I wonder whether the Navy still has such schools open to Fleet personnel, particularly those in the non-aviation ratings.—W.F.A., BMC, USN.

• *The AirShip Non-pilot School of which you inquire was formerly located at NAS Lakehurst, N. J. The school has been disestablished, however, and training is now being accomplished by inservice training in LTA squadrons and activities. In the future, additional training will be provided by Naval Air Mobile Trainer Units.*

At present there are no lighter-than-air training units in the Pacific Fleet. Moreover, there are no billets for BMC in any LTA squadrons. Therefore your chances of obtaining such a transfer of duty at this time are not good.—ED.

KPUC for Arikara

SIR: I commanded the USS *Arikara* (ATF 98) from September 1951 until June 1953. In that period we operated in Korean waters during various periods of 1952, including several tours under CTF 95, CTF 90, CTF 92 and with the British command off the Chinampo River.

I believe that the personnel aboard the ship during that time are eligible to wear the Korean PUC. Am I right?—L.T.S., LCDR, USN.

• *You're right. The men who served on board* Arikara *during the periods* 2 *Jul* 1950 *to* 30 *Dec* 1950 *and* 25 *Jan* 1952 *to* 9 *Aug* 1952 *are eligible to wear the Korean Presidential Unit Citation ribbon.*—ED.

Changing Rate to AT

SIR: I would like to change my rate to AT and, according to current directives, I'm qualified. I was told by a recent graduate of the AT "A" School that there is a special course offered to men changing their rate to AT, which consisted in part of the AT "A" and "B" courses. Our training officer knows nothing about this.

Where could I learn if there is such a program? Is it open to USNR (TAR) Personnel?—J. H. R., PN3, USNR.

• *Since one of the requirements for applying under this program is a minimum of five years' obligated service, personnel in the Naval Reserve are not eligible. Only Regular Navy personnel in certain aviation ratings and pay grades are eligible to take advantage of BuPers Inst.* 1440.13 (*Change One*), *which provides training for change of rate to AT, AQ, or GF.*

Therefore, your best bet would be to make application for change in rating in accordance with BuPers Inst. 1440.5A *which governs changes in rate, rating, and rating symbol by Regular Navy personnel and Naval Reserve personnel on active duty with the regular establishment.*

Approval of your request for change of rate would be contingent on your qualifications and the availability of school. The ultimate decision would be made on an individual basis based on the needs of the Navy at the time the request was acted upon.—ED.

What's My Score?

SIR: I was promoted on 16 Jun 1952. The grade I received on the examination I took for advancement was never made known to me. Could you help me find out what score I made on this exam?—W.R.D., SKCA, USN.

• *Scores attained on service-wide examinations are not normally published. Advancements are authorized strictly on the basis of an individual's final multiple. This is a composite figure allowing credit for the examination score, total active service, service in pay grade, and awards earned by the individual.*

You can determine your examination score by using the following method: Add credit for total active service, service in pay grade, and earned awards. These figures are contained in NavPers Form 624, *a copy of which is filed in your service record.*

Subtract the above total from the final multiple listed in the Naval Examination Center Advancement Letter which you received. The remainder will be your score on the examination.—ED.

CNATRA Billets for MMCs

SIR: In reading ALL HANDS, November 1955, I noticed that there are 79 billets on the SDEL under CNATRA for chief machinist's mates. Could you possibly tell me if there are any of these billets in the Jacksonville, Fla., area?—C. M. H., MMC, USN.

• *CNATRA (Chief of Naval Air Training) has activities in every naval district in the continental U.S. The bulk of CNATRA activities are in the Sixth, Eighth, and Ninth Naval Districts. There are* 51 *MMC billets at CNATRA activities in the Sixth Naval District, two of which are in the Jacksonville, Fla. area.*—ED.

Three Options for Dependents

SIR: I was transferred from permanent duty in El Centro, Calif., to USS *Coral Sea* (CVA 43) at Portsmouth, Va. My dependents were located at El Centro and traveled to my permanent home in Bristol, N. H. On payment of my wife's travel she received mileage allowance from El Centro to Portsmouth. Shouldn't she have been paid m/a for travel from El Centro to Bristol?—L. N. McK., PNC, USN.

• *Upon transfer from a shore station to a ship you have three options which you can exercise when it comes time to move your dependents:* (1) *they can go from your old shore station to either the home yard or the home port of the ship;* (2) *they can go from a place other than the old shore station to either the home yard or home port of the ship, or* (3) *they can go from the old shore station to some other spot. However, in all three cases the cost cannot exceed that to which they would have been entitled had they traveled from the old shore station to either the home yard or home port, whichever is greater.*—ED.

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HOW A SUBMARINE'S NUCL

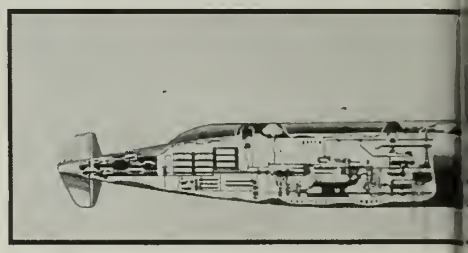
Engineering Plant Description

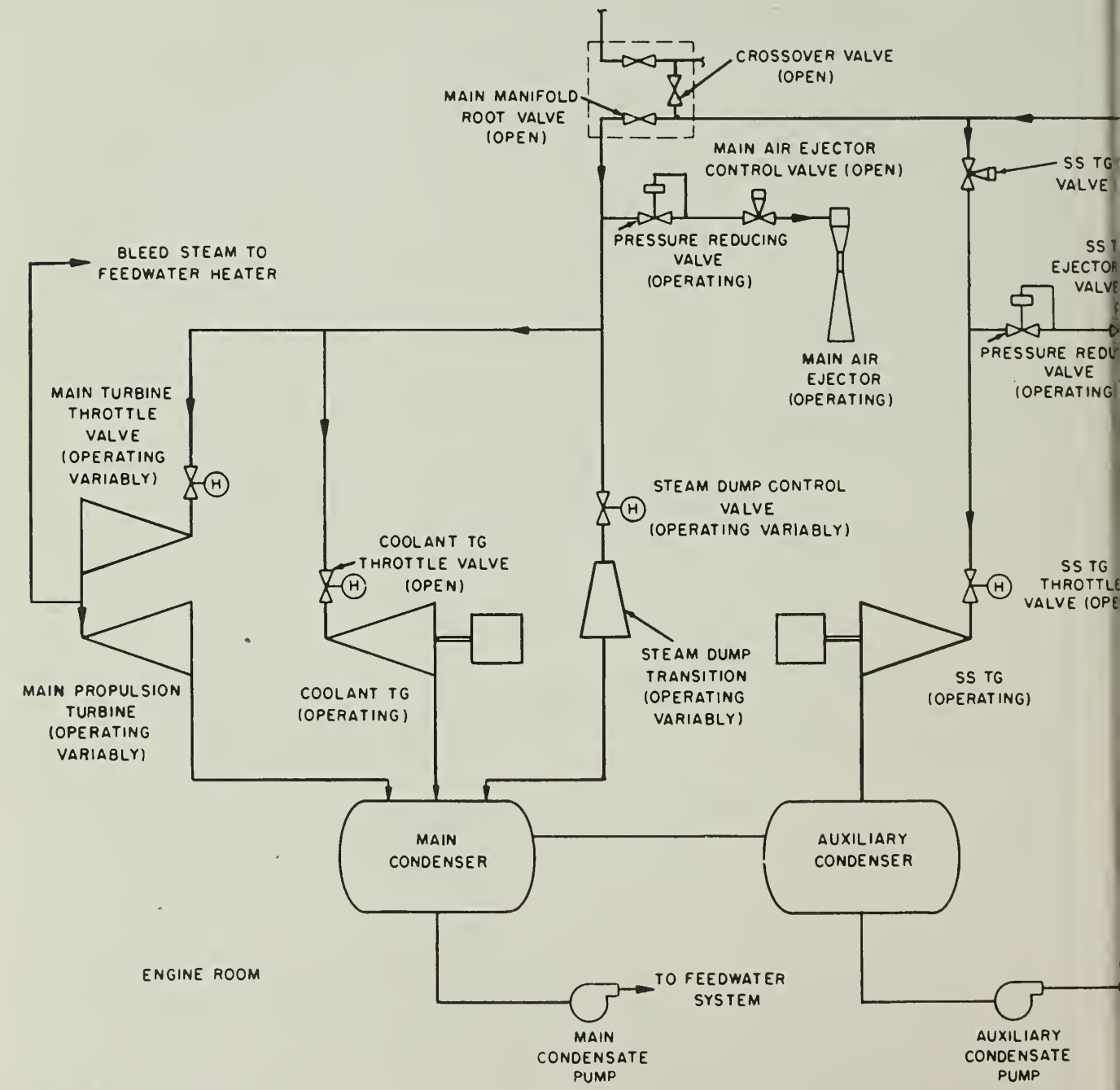
Primary System

The reactor compartment equipment includes one reactor, and the primary loop as shown on the sketch.

The reactor gives up heat to the primary coolant water which is then forced through the boiler heat exchanger tubes where it gives up heat to form steam on the shell or secondary side of the boiler. The primary coolant is then pumped back into the reactor where it is again heated up.

The primary coolant water is kept pressurized to high pressure to prevent boiling.





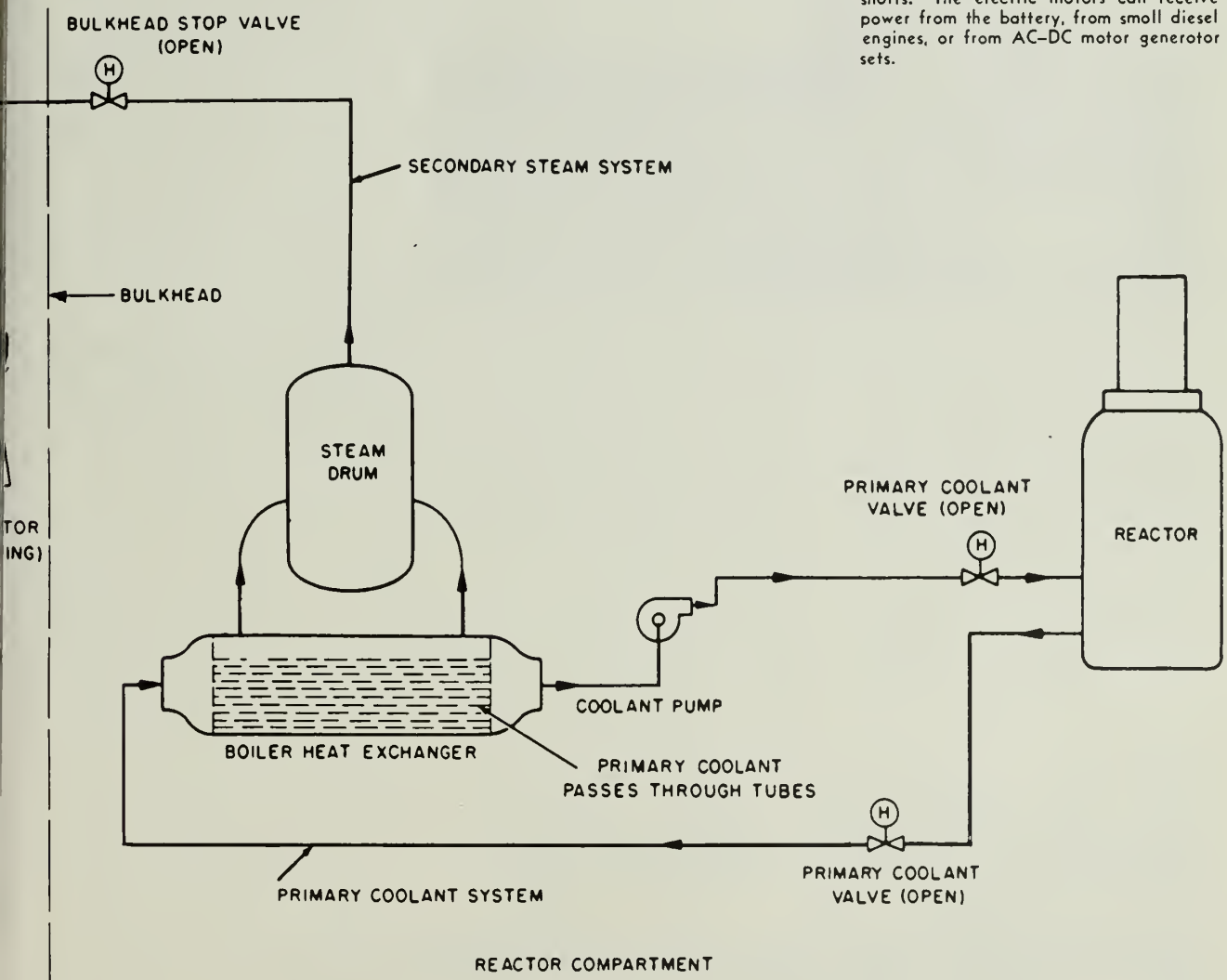
R POWER PLANT OPERATES

Secondary System

The secondary system is the steom system. It is completely isolated from the primory system since the primory water goes through the tubes of the boiler while the secondory woter which is boiling to make steam is on the shell side of the boiler.

Steom rises from the boiler to the steom drum where the woter corryover is seporoted from the steom. The dry soturoted steom then flows bock to the engineroom where it drives ships service turbogenerotor sets (SSTG), coolant turbogenerotor sets (CTG) and the moin propulsion turbines.

Provision is mode for unclutching the propulsion turbines ond reduction geors from the propeller shofts so thot the ship can be driven through the woter ot slow speeds using electric propulsion motors which ore built integrolly on the propeller shofts. The electric motors can receive power from the battery, from smoll diesel engines, or from AC–DC motor generotor sets.



MAIN PATHS OF STEAM COOLANT FLOW FOR CONSTANT STEAM-GENERATOR OUTPUT AND VARYING PLANT OUTPUT

TODAY'S NAVY

ALOHA YOKOSUKA—*USS Greenlet* (ASR 10) leaves Yokosuka harbor en route to home at Pearl Harbor after completing eighth Far Eastern Cruise.

Mock Atomic Explosion

The USN Special Devices Center, Port Washington, N. Y., has successfully completed tests on a mock atomic bomb training device to be used by the Navy for atomic defense training exercises.

The test consisted of the explosion of a training bomb, designed to simulate the mushroom shape of an actual atomic bomb, released from a small aircraft at an altitude of 1000 feet.

The simulated or "mock" explosion was an "air burst." An "air burst," technically speaking, occurs when the bottom part of the "fire ball" or flash is above the ground. If the fire ball touches the ground, it is called a "ground burst." A similar training device for Army ground forces using the ground burst principle has already been developed by the Special Devices Center and is now being used for training by the Army.

A simulated bomb contains 20 pounds of plastic explosives and 70 pounds of thermite mixture, weighs approximately 160 pounds, and looks like any ordinary bomb. There is no "fallout" nor radioactivity resulting from the test and there is no hazard to personnel in the area.

The bomb, or training device, can be used by Navy ships in mock atomic attack exercises to train personnel in atomic defense damage control, appropriate preventive action and deployment procedures in the event of an actual air attack. Simulation of the actual bomb burst is highly realistic but non-radioactive. It is expected that the use of the device will considerably improve the Fleet atomic defense training programs.

The Special Devices Center is a research and development activity of the Office of Naval Research. Its main purpose is to provide training equipment to improve the effectiveness of military training in the Navy and throughout the armed forces. Through training aids, devices and training systems developed at the Center, Navy personnel are trained more quickly, more economically, more effectively and without danger of loss of life.

Closed Circuit TV on *Hancock*

Keeping pace with the latest advancements in communications the attack carrier USS *Hancock* (CVA 19) claims to have installed the first closed circuit television to be used by any ship in the Far East.

The carrier's crew can gather at any of six vantage points—from the officer's wardroom to the general mess—and watch special events televised from various parts of the ship, including the flightdeck. The picture is fed into standard 21-inch TV receivers which present the usual local programs when the ship's own transmitters are silent.

There is also a large projection TV set in the hangar bay. Here a picture eight by ten feet can be projected onto the regular movie screen.

The closed circuit TV makes it possible for crewmen who are not on watch or those not allowed on the flight deck during launchings and special events to "see what's going on" aboard the carrier and keep up-to-date on the ship's operations.

In addition, the commanding officer may now address the ship's company in this direct personal way. And the testing of new weapons and the launching of planes with *Hancock's* new steam catapults are first-rate subjects for televising.

YESTERDAY'S NAVY

On 20 Apr 1861 U.S. naval forces under Flag-officer C.S. McCauley partially destroyed the Navy Yard at Norfolk, Va., and burned and scuttled USS *Pennsylvania*, USS *Columbus*, USS *Delaware*, USS *Raritan*, USS *Columbia*, USS *Merrimac*, USS *Germantown*, USS *Plymouth*, and USS *Dolphin*. On 29 Apr 1862 the city of New Orleans, La., surrendered to U.S. naval forces under Flag-officer David G. Farragut. On 4 Apr 1865 President Lincoln arrived at Richmond, Va., in company wth Rear Admiral David D. Porter, USN. On 1 April 1945 U.S. amphibious forces landed on Okinawa.

Training in *Seastar*

A new jet trainer, which can reach near-sonic speeds, is now rolling off the assembly lines and should join the Navy soon.

Dubbed the *Seastar,* the T2V-1 jet is a big advance in trainers. In normal flight the T2V-1 can "step down" its speed to the point where it can poke along like a crop duster or quickly accelerate to near-sonic performance in the 600-mph class.

The *Seastar* will be the first production airplane to take to the air in the Navy's new two-toned, orange and white paint design. It will provide many new safety features.

One of the innovations in the T2V-1 will be boundary layer control, the system which blows compressed air over certain control surfaces of the wing to improve lift and controllability. With it, *Seastar* can ease onto a carrier at 97 mph.

Model Meet at NAS Dallas

Balsa wood and glue fliers will take over NAS Dallas, Tex., 23-29 July, for the Academy of Model Aeronautics, 25th Annual National Model Airplane Championships. Last year's "Nationals" held at NAS Los Alamitos, Calif., was the eighth consecutive contest for which the Navy has been host.

Modelers, 2968 strong, invaded the air station with every conceivable type of flying contraption. A contest of particular interest to Navymen was the "Carrier Event" in which the pilot stands in the center of a flying circle and attempts to land his line-controlled airplane on the deck of a miniature flattop.

The control lines regulate the model's altitude and engine speed. Some of the fancier jobs are equipped with retractable flaps and landing hooks. Arresting cables on the carrier are made of string stretched between two sandbags placed on either side of the flight deck.

Action in the flying circle really gets hot when two or more beefed-up models are engaged in the combat event. Long streamers which fly from the tail sections of the models become the prey of the opposing aircraft. Often, in the heat of battle, an attacker's propeller chews off more than his opponent's streamer, and the area is littered with fragments of the would-be ace.

The events for radio-controlled models are growing in popularity and precision each year. Some models are equipped with the same type control devices used in Navy drones. For the most part, however, the models are smaller and weigh less than the standard drone. A few scale models of actual aircraft were entered in last year's contest and could have been mistaken for the real thing when in flight.

There was no mistaking the real thing, however, when the Navy put on an air show as part of the program. It featured the Blue Angels, the Navy *Cutlass* Team, an air-sea rescue operation and other events. On the ground there were displays of contemporary jet aircraft, and in hangars, action shots of Navy planes and exhibit booths were set up.

Navymen interested in competing in next year's contest can obtain further information from their local Academy of Model Aeronautics Club, or by writing to Academy of Model Aeronautics, 1025 Connecticut Ave. N.W., Washington, D. C.

Hydro-Skis for Large Seaplanes

BuAer is experimenting at NAS Patuxent, Md., to determine the practicability of installing hydro-skis on future production aircraft, using a PBM *Mariner* seaplane for the test.

The purpose of the tests is to decrease the impacts encountered during rough water landings and take-offs. The tests at Patuxent are expected to demonstrate that the rigid ski mounted on a single strut extending downwards perpendicularly from the hull, acts as a better "shock absorber" for the seaplane on landing than the conventional vee-bottom hull.

The ski being tested is a special model, approximately one-fifth the length of the *Mariner* itself. It is located slightly forward of the plane's center of gravity and has been undergoing tests in three different extended positions, close to the hull bottom, partially extended and fully extended.

Hawaiian Luau, Shipboard Style

Perhaps they were just tired of routine messhall feeding, or maybe it was that balmy Hawaiian night air; whatever the cause, the sailors of USS *Ingersoll* (DD 652) have treated themselves to a *luau*—Texas style—and they pulled it off on the ship's afterdeck while the destroyer was in Pearl Harbor on her way to WesPac.

As most Pacific Fleet sailors know, the Hawaiian feast called a *luau* usually includes such exotic items as roast pig and poi, lomi-lomi salad, and plenty of sand, hot stones and banana leaves—none of them standard in Navy messes.

So *Ingersoll* settled for a menu with a decided Texas barbecue flavor, served in the easy-going Hawaiian manner. With the aid of a grill knocked together from surplus 55-gallon oil drums, the ship's commissary crew turned out a meal of steaks-to-order, served up with baked beans, tossed green salad, potatoes, sliced fresh pineapple and raspberry nectar.

Again, maybe it was just the balmy air, but the topside meal was such a success that *Ingersoll* sailors are looking forward to frequent repeats—maybe even a Texas-style *sukiyaki* party!

FANTAIL BARBECUE for *USS Ingersoll* (DD 652) was cooked by R. D. Fimpel, CSSN, H. L. Fimpel, CS3, R. A. Beaudoin, SCS, and J. W. Box, CS1.

KEEPING THE FLEET on the 'go' a Fleet Type Oiler pumps 'life-giving' fuel to an aircraft carrier during Fleet operations on the high and stormy seas.

News of Navy Ships

Sailors of the carrier Navy have plenty to talk about these days, what with flattops making headlines on both coasts. On the East Coast the mightiest of them all, USS ***Saratoga*** (CVA 60), has moved from her drydock to a pier at New York Naval Shipyard. *"Sara"* will undergo dock trials and fitting out at the pierside before she's commissioned in April (at least that's the tentative date). *"Sara,"* incidentally, qualifies for the "mightiest" title by virtue of being 100 tons heavier than her sister ship, USS ***Forrestal*** (CVA 59). And with *Saratoga* out of the way, New York's Drydock Five is due to take on USS ***Leyte*** (CVS 32) for routine repair and overhaul.

Along the West Coast:

• USS ***Boxer*** (CVS 21) has pulled in from WesPac, ready for conversion from an attack carrier to the CVS status—ASW support aircraft carrier. And just in case you think everything in the Navy is speed and more speed, *Boxer's* jet aircraft will be replaced with slower propeller-driven planes since they are better suited to her new anti-submarine warfare mission.

• USS ***Bon Homme Richard*** (CVA 31), ole "Bonnie Dick" herself, is out of Hunter's Point after a 27-month conversion program which included angled deck and steam catapult.

• The Navy's first assault helicopcarrier, USS ***Thetis Bay*** (CVHA 1), has been commissioned at San Francisco Naval Shipyard. Before her conversion *Thetis Bay* was CVE 90, a member of the 1942 *Anzio*-class escort carriers—the famed "jeeps."

• No more "jeeps" are on duty in the Pacific, now that USS ***Point Cruz*** (CVE 119) has been scheduled for inactivation. From now on, their anti-submarine duties will be assumed by larger carriers which have been modified for ASW missions.

Two battleships have gained notice, one of them with a birthday. The latter is USS ***Mississippi*** (AG 128), the Navy's oldest ship on active duty. Now serving as an experimental gunnery ship, *Missy* passed her 38th birthday dreaming perhaps of the 667 days during World War II when her guns slammed more than nine million pounds of shells at the enemy. Today, of course, guided missiles have replaced her 16-inch guns. USS ***Iowa*** (BB 61), which has been undergoing overhaul at the Norfolk Naval Shipyard, has got herself regunned in the process. Repeated firing had worn the lining of her 16-inchers to the point where replacement was necessary, so they were removed and shipped to the Naval Gun Factory to have new linings fitted.

The tin can Navy has also been on the move, with several commissioning ceremonies, and the scheduled transfer of eight destroyers to West Coast duty.

• USS ***Wagner*** (DER 539) has been recommissioned in Boston. A World War II DE, she got her name from William D. Wagner, USNR, a seaman second class assigned to armed guard duty aboard a merchant ship. In February 1942, his ship was endangered by the shifting of ballast during a hurricane. Wagner—and every other man of the Navy gun crew—volunteered to leave their guns and help put the ballast back where it belonged. While this was going on a submarine was sighted, but the Navymen got back to their guns and forced the sub to head for bottom before she could do them any harm. Later, a German U-boat got both the merchantman and Wagner, but his sterling conduct had already earned him a niche in naval history.

• USS ***Forrest Sherman*** (DD 931), number one in a new class of "tin can," has also been commissioned in Boston. Designed as replacement for the WW II *Gearing* class destroyer, *Forrest Sherman* is being followed by these sisters: *John Paul Jones* (DD 932); *Barry* (DD 933), which has already been launched; *Decatur* (DD 936); *Davis* (DD 937); and as yet unnamed DDs numbered 938, 940, 941, 942, 943 and 944. In addition, funds are available for seven other destroyers of the class.

A new DE has gone down the ways at Bay City, Mich. She is USS ***Lester*** (DE 1022), a single screw job which incorporates the latest in radar and increased fire power, plus a superstructure which features extensive use of aluminum. *Lester* takes her name from Fred F. Lester, a young hospital apprentice first class who stoically disregarded a mounting fury of Japanese fire to rescue a wounded Marine during action on Okinawa Shima, 8 Jun 1945. Although mortally wounded himself, Lester pulled the Marine to safety and directed the treatment of that Marine and two others before succumbing.

Two other DEs—USS ***Muir*** (DE 770) and USS ***Sutton*** (DE 771)—have been transferred to the Republic of Korea under provisions of the Mutual Defense Assistance Program. Henceforth they will be known, respectively, as *Kyongki* and *Kangwon*.

The century-old Mare Island Shipyard has laid the keel for her first—the Navy's fifth—nuclear-powered submarine. USS ***Sargo*** (SSN 583) will be the first nuclear ship built on the West Coast, the 30th submarine built by the Mare Island yard.

Finally, USS ***Salmon*** (SSR 573) has been launched in Portsmouth, N. H. A sister ship of USS ***Sailfish*** (SSR 572), the Navy's first radar picket "boat," *Salmon* takes her name from the

USS FORREST SHERMAN (DD 931), first of Navy's new destroyer class, tests the brine during her sea trials.

WW II craft which, in the last week of October 1944, got herself a Japanese tanker—and a beating from four A/S vessels which left her so beat up that repair engineers couldn't see any point in overhauling her. *Salmon's* retirement was honorable, however, since she had accounted for some 24,000 tons of enemy shipping.

Big news for men interested in attack cargo vessels is the commissioning of USS ***Tulare*** (AKA 112), a prototype which features the last word in just about everything. A 563-footer, *Tulare* is rated at 18,000 tons and has a speed in excess of 22 knots. Besides the newest of electronic and radar equipment, she has a helicopter landing platform on her stern, while two four-legged masts support booms capable of lifting 60-ton landing craft to and from the sea. San Diego has been selected as her home port.

Other changes in the Fleet include a number of craft either placed in or out of commission:

• USS ***Truckee*** (AO 147), a fleet oiler of the *Neosho*-class, has been commissioned.

• USS ***Skill*** (MSO 471), a 750-ton, 165-foot, non-magnetic ocean-going minesweeper, has been commissioned in New York.

• USS ***Thor*** (ARC 4) has been commissioned as a cable-laying ship. Before conversion for her new duties, she was USS *Vanadis* (AKA 49).

Two other additions to the Fleet are a new minesweeper, USS *Esteem* (MSO 438), and a midget submarine, USS *X-1*. *Esteem* is a 173-foot vessel built of wood and non-magnetic materials and having a maximum displacement of 780 tons. USS *X-1* is the U. S. Navy's first midget submarine—a 50-foot, 25-ton "miniature" which has been placed "in service" after a series of tests and shakedown training. Manned by five frogmen, the torpedoless submarine was built to help test the harbor defense installations of our coastal ports. Incidentally, she is also the first naval vessel of any kind designed and constructed by a U. S. aircraft manufacturer.

Finally, a number of sturdy craft have entered the limbo of decommissioned vessels:

• USS ***Bottineau*** (APA 235), an attack transport, has hauled down her pennant in Philadelphia. First commissioned on 30 Dec 1944, she pulled troop carrier duty in the Pacific until placed out of commission in 1948. Three years later she was taken out of mothballs for another tour of sea duty.

• The amphibious force flagship USS ***Adirondack*** (AGC 15) has been placed out of commission. She is now laid up with other vessels in Sub Group One of the Norfolk Group.

• Other ships joining the Atlantic Reserve Fleet include the landing craft repair ship USS ***Menelaus*** (ARL 13); the repair ship USS ***Briareus*** (AR 12); the attack transport USS ***Rockwall*** (APA 230); the medium landing ship (rocket) USS ***Owyhee River*** (LSMR 515); coastal minesweeper USS ***Swan*** (MSCO 37); and LSTs USS ***Monmouth County*** (LST 1032), ***Cheboygan County*** (LST 533), ***Clarke County*** (LST 601), and the minesweeper USS ***Brant*** (MSCO 43).

• USS ***Markab*** (AD 21) has put in at the Charleston, S. C., Naval Base to resume her place in the Reserve Fleet. This 492-foot destroyer tender was taken out of the Texas group of "mothballers" in February 1952 for Korean duty. Since then she has been pulling duty with DesLant. Other craft being placed in reserve include USS ***Middlesex County*** (LST 983) and USS ***Megara*** (ARVA 6), an aircraft repair ship (aircraft) originally designed as an LST.

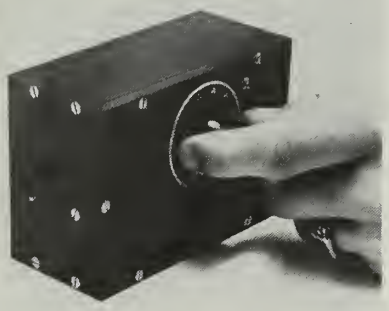
• USS ***Bannock*** (ATF 81) has gone into mothballs at the Submarine Base in New London, Conn. A veteran of World War II, she operated in both the Atlantic and Pacific, doing towing, salvage and rescue work.

SALTY 'WATCH DOG' *USS Interceptor* (YAGR 8) was commissioned at Charleston. She will head for West Coast to guard our shores against possible attack.

Measuring Radioactive 'Fallout'

Scientists at the Naval Research Laboratory have developed an inexpensive instrument for measuring radioactive "fallout" that is easy to operate and simple enough to be mass-produced for civilian use.

Built of commercially available



components, the new meter is the latest result of NRL's research into the effects of radiation on crystalline materials. Previously, locket-type "dog tag" dosimeters were developed, using glass which changes its luminescence when exposed to nuclear radiation. These have been adopted for use by military personnel. More recently, the same glass has been adapted to measuring higher intensities of radiation as used in medicine, and its use in sterilization and pasteurization of food is being studied.

The radiation-detection element in the new "fallout meter" is a crystalline cadmium-sulphide. Gamma radiation falling on this crystal produces an electrical current which charges a capacitor. When the capacitor is fully charged, it discharges and lights a neon lamp. This lamp flashes on and off as the capacitor charges and discharges; the rate at which it flashes is an indication of the intensity of radiation present.

An experimental model of the battery-operated instrument covers a radiation range from 0.1 roentgen per hour to 1000 roentgens per hour. A roentgen is a standard measurement of quantity or "dose" of radiation; a lethal dose is generally considered to be between 300 and 600 roentgens.

Navy scientists who developed the instrument felt that a simple and inexpensive fallout meter was necessary for civil defense. Since radiation intensity varies from spot to spot in a single building, such a device would help the user pick the safest shelter area. And it should help prevent panic in an area where no fallout was present, or where the intensity had a negligible value.

Joins Air Defense Team

The first Navy squadron to engage in active participation of the Continental Air Defense Command is Pacific Fleet's All Weather Training Unit at North Island Naval Air Station, San Diego. As a link in the Air Force, Army, Navy and Marine Corps network of air defense—a chain which stretches from San Diego to Alaska and from Savannah to Labrador—FAWTUPac has the southern sector of California as its area of responsibility, with its "alert" aircraft being placed under operational control of the 27th Joint Air Defense Division at Norton Air Force Base, San Bernardino, Calif.

In ceremonies preceding the squadron's first "alert" scramble under the combined command, VADM Harold M. Martin, USN, Commander Air Force, Pacific Fleet, and Major General Roy H. Lynn, Commander of the Western Air Defense Force, symbolized the Navy's integration into air defense by moving together two sections of cake, each decorated by half of a pair of pilot's wings, one Navy, one Air Force.

Moments later, the scramble horn blasted personnel and planes into action. While North Island's tower cleared the field of all traffic, plane captains started the powerful twin-engined, all-weather F3D jet fighters.

It took less than a minute to start engines and head the planes down reserved taxiways to a special scramble runway. The first jet streaked from the runway in 2:04, the second in 3:15. After becoming airborne, the jets were turned over to a ground-controlled intercept unit for radar guidance to the approaching "enemy" plane.

FAWTUPac, which trains pilots, aircrewmen and air controllers in all-weather flight tactics, has been training its own personnel night and day for their added mission.

Two CPOs—Two-Thirds Century

Two Navy career men are hanging up their sea bags after splitting 66 years of naval service between them.

Harry F. Menefee, HMC, USN, has retired from active duty after 30 years' service and Walter R. Sellers, ADC, USN, has retired after 36 years' service.

"Spike" Menefee retired from the destroyer USS *Orleck* (DD 886) where he had been a crew member for the last 17 months. He became a CPO in 1940, was appointed a warrant officer in 1942, commissioned to the temporary grade of ensign in the Hospital Corps in 1943, promoted to LTJG in 1945 and reverted to CPO in 1946. He retired as LTJG in the Hospital Corps.

Walt Sellers retired from Fleet Aircraft Service Squadron 110 where he had been the leading chief since 1950. Chief Sellers, who began his Navy career in 1919, has a service-minded family of his own—his two daughters have served in the WACs and his son is at present serving in the U. S. Marine Corps Reserve.

CPOs OF FASRon 110 pay tribute to their leading chief Walter R. Sellers, ADC, USN, as he is 'piped over the side' after 36 years of active duty.

Air Units Enroll DD As Member

The San Diego-based destroyer USS *Theodore E. Chandler* (DD 717) has been named as honorary member of two naval air units because of the first-rate seamanship and just plain hard work of its crew during search and rescue operations off the northern tip of Luzon, P. I., last fall.

In October, when a Navy P5M *Marlin* was forced down at sea by engine failure on a routine patrol mission, *Chandler*, a unit of DesDiv 111, went to its aid. *Chandler's* crew and the crewmen of the downed plane joined forces to save the plane, being battered by the heavy winds and seas generated by the fringes of typhoon Opal, until a seaplane tender could pick up the damaged aircraft.

Fighting erratic currents, high winds, rough seas and poor anchorage, the two units displayed outstanding seamanship through a long, cold night to preserve the P5M and her equipment. When dawn broke, the situation eased somewhat and the destroyer was able to move in and take the plane in tow. Several hours later, USS *Salisbury Sound* (AV 13) arrived to complete rescue operations and to bring the plane to safety.

In recognition of their work, *Chandler's* crew was awarded honorary membership in Fleet Air Wing One and shortly thereafter the destroyer also became an honorary member of Aviation Patrol Squadron 46 upon the invitation of the commanding officer of that squadron.

Four Airmen Rescued at Sea

A mid-Pacific, midnight swim by four crew members of USS *Floyds Bay* (AVP-40) saved the lives of four of a five-man crew of an Air Force "Flying Boxcar" after a bail out 650 miles east of Hawaii.

When the plane developed engine trouble the crew sent out a "May-day" signal. The small seaplane tender, some 65 miles away, heard the cry for help and quickly sped for the position the plane had last reported.

Despite the darkness, high winds and very rough seas, crew members of *Floyds Bay*, including Thomas H. Watson, BM2; Charles R. Luko, SN; Rex D. Hill, SN; and Thomas E. Neely, SN; located and brought the four flyers aboard.

The four Navymen, swimming with lines from the ship, effected the rescue in a manner that brought them the personal thanks of Air Force officials upon their return to Pearl Harbor.

Despite an intensive search by some 40 planes and 16 ships the fifth man of the plane's crew was never located.

Missouri Makes Good Showing

The state of Missouri has long been known as the "Show Me State," but during the month of January, Missouri showed the rest of the nation as it staged a special "Navy Sign-up Month," designed to encourage the young men of that state to enlist in the Navy.

Backed up with a special proclamation by Governor Phil M. Donnelly, the entire state went all-out in assisting Navy recruiters of the state in the task of insuring that there are always enough men to keep the Navy as the first line of defense.

Throughout the state special billboards and window displays were set up which told the Navy story. Newspapers and radio stations were constantly reminding the citizens of the advantages of the Navy as well as the important part the Navy plays in national defense.

Officials in Missouri had high hopes that this recruiting drive would boost Missouri to the top of the list in national standings, percentage-wise, of men enlisting in the Navy.

Sub Makes Good Will Cruise

USS *Jallao* (SS 368) recently completed a three-month, 18,000-mile good will cruise on her way home from the Mediterranean, where she completed a tour with the U. S. Sixth Fleet.

She departed from the Island of Malta 20 January en route for the Suez Canal, the Red Sea, African ports on the Indian Ocean, and the Cape of Good Hope. After rounding the Cape, she crossed the Atlantic and visited South American countries en route north to her home port, New London, Conn.

This was the first such cruise to be made by a U. S. Navy submarine.

The itinerary of the *Jallao* included Port Said, Egypt; Massaua, Ethiopia; Djibouti, French Somaliland; and Capetown, Union of South Africa.

GOING UP—S. J. Parillo, QM3, USN, of *USS Baltimore* (CA 68) eyes officer's hat before leaving his ship for Naval Preparatory School at Bainbridge, NTC, where he will train for U. S. Academy. Parillo received a Congressional appointment to the Academy.

The ship's complement includes nine officers and 72 enlisted personnel.

Jallao is a WWII fleet type submarine converted to a guppy. Launched in 1944, she made four war patrols and sank a Japanese cruiser during the Battle for Leyte Gulf in 1944.

Fifty-Niner Hits Jackpot

A snow job won 11 different prizes in a "Name the Newspaper," contest aboard USS *Forrestal* (CVA 59).

The snow job was the work of Richard B. Snow, IC2, USN, and his winning entry in the contest was the name "Fifty-Niner" which now adorns the four-page, semi-monthly ship's newspaper.

Snow's prizes included: A $25 Savings Bond; a first edition of the paper autographed by the ship's CO and XO; a photograph of the ship; a steak dinner in the CPO Mess; a special shampoo and haircut in the ship's barber shop; a 24-hour pass to sick bay for a rest; a portrait, guaranteed to do justice, by the ship's photographer; blues and whites done specially and with care by the ship's laundry; one free gee-dunk; two free passes to a local movie theater and last, but far from least, a special head of the line chow pass good for one week.

Navy to the Shores of Tripoli

Winter floods from the mountains struck Tripoli (Lebanon) with such savage fury that, within 15 minutes, they had brought death to approximately 150, injured 520 and left more than 2000 homeless.

As they have done so often in the past, Navy planes responded to the plea for assistance. Air Transport Squadron 24, based in Port Lyautey, French Morocco, spanned the Mediterranean as they transported more than 50,000 pounds of whole milk and C-rations to the damaged city.

As soon as news of the disaster reached Navy headquarters, the commanding officer of VR-24 sent two flights from the Moroccan base to the unit's detachment at Naples, Italy.

Detachment personnel were standing by with foodstuffs that was destined to be the first food in several days for many Lebanese.

Arrving in Italy the planes were loaded down with 25,000 pounds of food, fueled and checked by flight mechanics and sent on their way to the far end of the Mediterranean Sea.

At the tiny airstrip at Klayat, located just outside the city of Tripoli, the Navy crews were met by two large flat-bed trucks that took the food to a central distribution site.

Navymen from VR-24 saw at first hand the destruction and havoc caused by the waters in their wild spree. The streets, four days after the flood, were still submerged under one to two feet of mud and rocks, hindering even light travel.

The waters, reported by authorities to have been around 50 feet high, buried many cars in garages and in the streets. Others had been hurled through garage doors like toys. Walls ten feet high had been smashed down into piles of rubble or pushed many feet from their original posts leaving a gigantic task for the bulldozers that were already at work cleaning up the debris.

A Nose for the Weather

Specially equipped weather-reconnaissance versions of "flying radar stations" are now being delivered to the U. S. Navy.

The first of the new airplanes, bearing the designation "WV-3," have gone into service with Early Warning Squadron Four at NAS, Jacksonville, Fla.

Designed for double duty as either a long-range radar picket plane or a "hurricane hunting" aerial weather station, the new aircraft is equipped with virtually all of the complex electronic equipment now in the WV-2 plus highly specialized meteorology instruments.

The WV-3 is equipped to tell what's ahead in the air — whether it be invading enemy bombers or "fair and sunny" weather.

One of the first uses of the turbo-compound-engine ships was to fly them into 1955 hurricanes off the eastern U. S. coast. One mission lasted 18 hours, during which the plane spent four hours in the eye of Hurricane Janet.

Much like earlier WV-2 radar-early-warning planes, the WV-3 has a fin-like radome atop its fuselage and a blister-like radome underneath.

Specialized meteorology equipment in the WV-3 includes a unique device which instantly records the rate at which ice forms at various altitudes. Called an "ice rate meter," it replaces former instruments which were limited to measuring ice thickness after it had already accumulated on external surfaces.

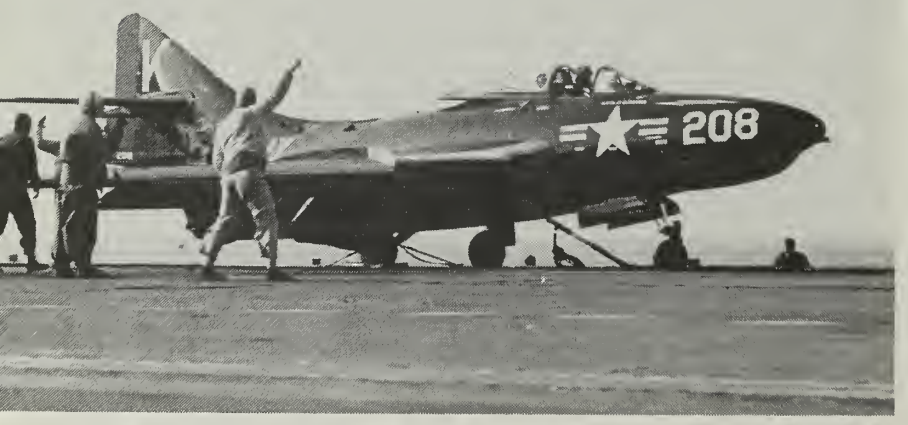
Another unusual weatherwise instrument is a fast-acting, electrically operated thermometer. Attached under the fuselage, it features a "probe" which extends into the air stream and is automatically cooled at the same rate at which air flowing against the thermometer would heat its surface. Thus an adjusted reading is obtained which reflects the air's true temperature at the given altitude.

Previous temperature recorders calibrated outside temperature against altitude, humidity and other atmospheric conditions.

Application of the submarine "escape hatch" principle to the WV-3 resulted in installation of a small, pressure equalization chamber for use in releasing radiosonde balloons. It enables the weather-recording balloons to be released from within the airplane, at altitude, without depressurizing the main cabin.

The balloons return to earth, transmitting temperature, humidity and dew point information en route.

The WV-3, like its sister plane, has a galley for meals aloft and bunks for off-duty crews. Cabins are pressurized to maintain 10,600-foot comfort at 25,000 feet. The interior can be kept at 75 degrees despite 60-below-zero temperatures outside.



AIRCREWMEN take in hand an F9F Cougar jet fighter as they spot it on flight deck of *USS Midway* (CVA 41) during NATO exercises in Mediterranean Sea.

Top AKA in Pacific

USS Warrick (AKA 89), has been adjudged top ship of her class in the Pacific Fleet for the period of the last fiscal year.

The 13,860-ton cargo ship, which has a complement of 173 enlisted men and 15 officers, is normally part of the Pacific Fleet's amphibious forces, and has been serving since the beginning of the Korean War as a unit in the supply pipeline from the Oakland Naval Supply Center to the Far East and Pacific Fleet.

Pitted against more than a score of similar ships, she won her "top ship" designation in competitive Class 1 of the annual battle efficiency competition by the Commander Service Force, Pacific Fleet.

Habitability in a YV

USS *YV-2* may be small but she boasts a new recreation room that has all the features of her big sisters of the Fleet.

Featuring tiled decks and brightly painted bulkheads, the rec room—which is a remodeled and renovated former storeroom—is equipped with card tables, lounge chairs, a radio-phonograph console, TV set, motion picture projector and screen, and library.

YV-2, the only Navy drone-launching ship of its type in the Atlantic Fleet, gets underway before dawn and usually operates until after dark, so there has been a definite need for a place in which the crew may relax during off-duty hours.

The ship, with its crew of four officers and 40 EMs, is responsible for launching, directing and recovering drones used as targets.

Plank Owner Piped Over Side

The last of the plank owners left USS *Meredith* (DD 890) when Robert E. Johnson, FTC, USN, was piped over the side between two rows of CPOs acting as sideboys.

The salty ceremony ended more then 10 years' service on board *Meredith* for Chief Johnson. He was on board when the ship was placed in commission on 31 Dec 1945 and has seen every member of the ship's first crew leave. For the past three years he has been the only plank owner left in the ship.

Before leaving the Atlantic Fleet destroyer Johnson received a plaque attesting to his years of faithful service which covered eight trips to Europe, 11 trips to the Caribbean and two Arctic voyages.

Twin Careers for MM1 and DDE

Norman M. Johns, MM1, USN, is a plank owner and he has his own personally engraved plank to prove it. Johns was presented his plank by the skipper of USS *Carpenter* (DDE 825) in recognition of Johns' six years of service aboard the escort destroyer.

After graduation from recruit training and the Class "A" Machinist Mate School at Great Lakes, Ill., Johns reported aboard USS *Carpenter.* He sailed in that ship from the day of her commissioning in December 1949 until November 1955. During that six-year period, Johns went up the promotion ladder from MMFA to MM1. He was the last of *Carpenter's* original crew to leave the ship.

SIDELINE STRATEGY

WHEN Navyman Logan Reid Patterson entered the University of Georgia in 1950, he knew enough about swimming to stay afloat, but not much more. He must have been an apt pupil because today he holds the national intercollegiate 100-yard freestyle record and is viewed as the outstanding prospect for swimming's most coveted crown—the Olympic 100-meter freestyle championship.

The 23-year-old All-America swimmer is also co-holder of the new world's 200-meter medley relay record. Patterson, who was graduated last month from recruit training, is now assigned to the Bainbridge Naval Training Center. Having already submitted his application to participate in the Olympic swimming tryouts next summer, Patterson should be one of the Navy's outstanding candidates for the team.

Despite the fact that he knew nothing about competitive swimming when he entered college, Patterson went out as a freshman and won the Southern AAU backstroke championship. As a sophomore, he placed fifth in the National Finals in the 100- and 200-yard backstroke.

During his junior year, Patterson switched to freestyle swimming and won the National Collegiate and National AAU championships. In his senior year, Patterson broke two American swimming records. In a dual meet between the Universities of Georgia and Florida, he set his 100-yard freestyle, long-course record, covering the distance in 51 seconds, which replaced the old mark of 51.4 seconds.

Shortly after, in an official attempt to break the American record for the 110-yard course, Patterson swam the distance in 57.6 seconds, beating the record by seven-tenths of a second.

In the summer of '55, Patterson participated with the U.S. team in the quadrennial U.S.-Japanese Swimming Meet held in Tokyo. He won the 100-meter freestyle in 57.2 seconds, a time that tied the record for that contest. He also helped break the world's 200-meter medley relay record during that time.

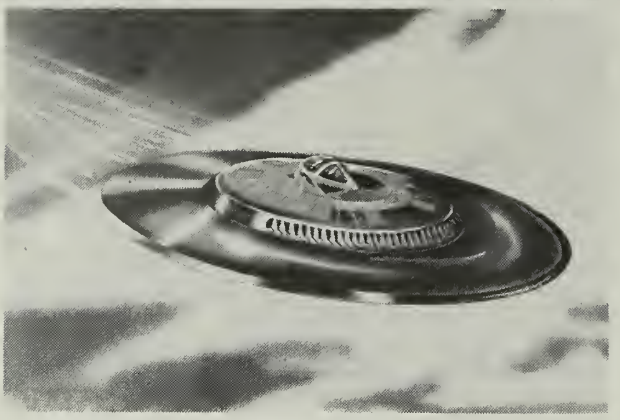
★ ★ ★

The only Navyman to be chosen for the U. S. Olympic team to the Winter Games was Ensign Tom Corcoran, USNR, of the escort vessel USS *Howard D. Crow* (DE 252). He was selected to the nine-man Alpine Ski team. In the Olympic Giant Slalom, Corcoran finished 14th in a field of 80 skiers.

Other Navymen who tried out for the U. S. team but were ultimately cut from the squad included: Ensign G. H. B. Gould, USNR, of USS *Coates* (DE 685); LTJG Walter Greeley, USN, of USS *Leyte* (CVS 32); LTJG Tom Carroll, USNR, of Newport; LTJG Henry Bothfield, USNR, of USS *Stoddard* (DD 566); Ensign Leonard Dartt, USNR, of NTC Bainbridge; and Sherman Saltmarsh, SN, USNR, of RecSta Boston.

—Rudy C. Garcia, JOC, USN.

Brief news items about other branches of the armed services.



NO LITTLE GREEN MEN. This is a conception of vertical rising, disc-shaped aircraft under development for USAF.

★ ★ ★

No needle is needed with the new inoculation mechanism being tested at Walter Reed Army Medical Center. It gives promise that someday the Army's soldiers may receive quicker and practically painless inoculations.

This automatic injection syringe works on the principle that fluids propelled at great speed will penetrate human skin without bodily harm. To spray, the doctor or nurse places the end of the syringe against the arm and by pressing the release trigger completes the inoculation in eight-tenths of a second. The second trigger then reloads the device.

More than 10,000 soldiers have been injected with various vaccines using this automatic multiple dose syringe.

★ ★ ★

Six-foot, 200-pound dummies, as nearly like the human body as sponge rubber, steel skeleton and a cast aluminum skull can make them, have been taking rides on a supersonic rocket sled at Edwards Air Force Base, Calif., to provide U. S. Air Force pilots with a reliable escape system in the event of an emergency bailout.

Tests have been made with an actual nose section equipped with the standard pilot escape system of the F-102A all-weather interceptors.

Out of these tests has come new knowledge of the forces that tear at a man as he is catapulted into the air blast streaming past a supersonic aircraft.

Already, this knowledge is being translated into life-saving improvements to the latest type of pilot escape equipment.

Harnesses keep the pilot more firmly strapped down until the precise moment for his automatic separation from the seat and deployment of the parachute.

New helmets, affording greater protection for the pilot against wind blast and supersonic noise, are being developed. Different types of parachutes also are being tried out.

In the F-102A ejection system, a pilot in an emergency condition can bail out of the interceptor in just two seconds, even at supersonic speeds. If forced to abandon the aircraft, the pilot raises the hand grips on the seat arm rests to dump cabin pressure and jettison the cockpit canopy. The shoulder harness, securing the pilot in his seat, is also automatically locked.

The pilot presses the seat ejection trigger and the seat is catapulted out the cockpit by an explosive charge. The ejection cycle is completed in about a half second.

Two seconds after the seat has safely cleared the F-102A, the pilot's lap belt and shoulder harness automatically open, separating the pilot from the seat and at that instant pulling the lanyard that deploys the parachute.

★ ★ ★

Undergoing field tests and evaluation as a communications device for squads and other small tactical military groups in the field is a transistorized instrument tiny enough to be carried in a shirt pocket, yet powerful enough for two-way communication over a quarter-mile range. The Signal Corps is testing the miniature FM radio at Fort Carson, Colo.

A completely self-contained and self-powered radio, the transistorized transceiver houses a receiver-transmitter, microphone-earphone, collapsible antenna, and a battery in a single compact assembly which weighs only 15 ounces and is approximately the size of a small tobacco tin. Its measurements are 5½ inches high, 3 inches wide, and 1 inch deep. It is designated for operation in the 45-to-50 megacycle band.

★ ★ ★

Snow and ice at Hopedale, Labrador, are under investigation by the Air Force to determine their usefulness as landing fields for modern aircraft.

Today, with aircraft more and more needed in the Arctic, where other methods of transportation are difficult, if not impossible, the problem of safe landings and take-offs by heavily loaded aircraft has reached major proportions.

To solve this problem, the Air Research and Development Command, supported by other U. S. agencies and Canada's Defense Research Board, is conducting a series

SPECIAL DELIVERY—Copter delivers 2.5 tons of 105mm howitzer. This is first time complete gun has been lifted.

of tests at Hopedale. Working in near-zero temperatures most of the time, the research team will perform a number of tests and investigations.

These include excavating large ice beams and loading them to the breakage point, cutting cylindrical samples of ice for measurement of their crushing and breaking strengths and measuring the sag or deflection of ice sheets by moving or static loads.

One of the devices to be used will be a large metal tank, into which water will be pumped to create loads up to 80 tons on the ice.

Scientists will explode charges of TNT at ranges from 50 feet to a mile away, to measure the elastic properties of the ice by studying the rate and direction at which shock waves are carried through it.

Helicopters will also be used. They will carry pointed projectiles of varying weights to differing altitudes. The projectiles will then be dropped onto the ice and the resulting crack patterns will be studied.

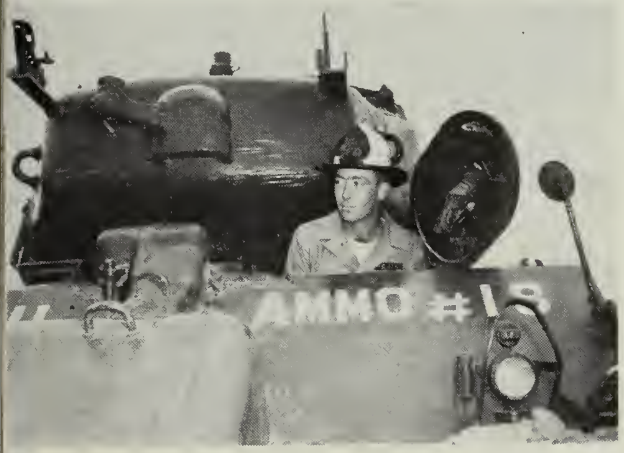
Another area of investigation will be the rate of growth, thinning of ice sheets. Studies are scheduled of the effects of solar radiation, measurement of the ice, air and water temperatures, salinity of the ice, and the role of weather such as winds, air temperature changes, or change in snow cover depth.

Microscopic study of the individual ice crystals as they grow together to form ice sheets will be made.

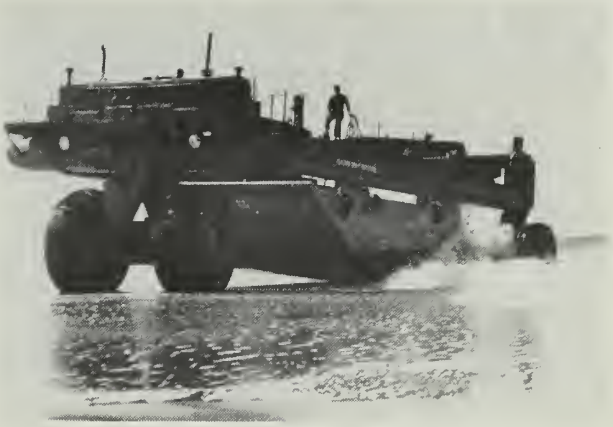
When spring arrives, another study will be the measurement of the change in the ice or snow cover thickness when it is covered artificially by various substances which change the absorption of the sun's heat.

The ice thickness that will be found by the Arctic research team will be about 40 inches, with an uneven snow cover ranging up to three feet in depth. In addition to temperatures that may dip as low as 40 below zero, the men expect to encounter winds as high as 80 miles an hour during the frequent snow storms.

The target of the entire research project is to obtain improved and more reliable tables of load-bearing strength of sea ice, and to develop an airborne indicator of ice thickness and strength for use by aircraft intending to land in previously unexplored areas.



TOO HOT TO HANDLE—Army fireman at Okinawa ammo depot uses tank with dozer blade to snuff dangerous fires.



LOTS OF PICK UP in this Army vehicle. New landing craft retriever brings in crippled craft during landing operation.

A NEW VEHICLE designed to recover stranded landing craft is now being tested by the Army Transportation Corps.

Labeled the Landing Craft Retriever, it is an intricate arrangement of hoists, wheels, and engineering power which straddles a vessel and lifts it from the water. The retriever can "right" a capsized or broached craft, transport it to deeper water, or carry it bodily out of the water and onto shore.

The LCR is able to enter water at depths up to eight feet—pick up the damaged craft and climb ashore over beaches having grades as steep as 20 per cent.

The retriever weighs 101 tons, is a four-wheeled, diesel-electric, self-propelled vehicle, 75 feet long, 38 feet wide and 22 feet high. It was designed to operate from the beach seaward to a water depth of six feet, but tests indicate successful operation in eight-foot depths. It is capable of lifting any landing craft up to and including the 67-ton LCM-8.

A system of electric switches makes it possible for one man to handle all operations of the unit, although a crew of three is maintained for attaching hoist cables to grounded or capsized craft.

★ ★ ★

A NEW LIGHTING SYSTEM in radar rooms which provides greater efficiency and accuracy for radar scope observers (while retaining compatible working conditions for other personnel working in the same room) is being developed by the Air Force.

Although a darkened room affords greater efficiency for radar scope observers, it is a handicap for others who have to work under the same conditions. The new system solves this problem. It provides for general blue room lighting for maintenance and other personnel not observing the radar scope. At the same time, a transparent orange filter placed on the radar scope gives the observer a picture whose clarity is only slightly reduced by the blue light. By wearing orange goggles, the radar scope observer may completely darken the room for himself.

Preliminary tests have proved to be satisfactory, and indicate near optimum working conditions for both the observers and maintenance personnel.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **NUCLEAR TRAINING FOR SURFACE SHIP SAILORS**—The first announcement of training for enlisted men, other than qualified submariners, in the nuclear power field has recently been released. Both ComServLant and ComServPac have nominated qualified personnel under their command for the program, in compliance with a request issued to CinCPacFlt and CinCLantFlt by the Chief of Naval Personnel.

Men selected for the surface nuclear power training will be sent to Idaho Falls, Idaho, for their instruction and will be slated for duty aboard the first nuclear powered surface ship or the land prototype for the first nuclear powered surfaced ship.

Men attached to fleet commands in the ratings of ET, MM, BT, EM, IC, MR and FP may be eligible for the program if they meet the requirements. They must be highly motivated; not over 30 years of age; have a high school diploma or a GED certificate; and have a minimum score of 55 in their GCT, ARI, and MECH or MAT tests. In addition they must have a clear record.

At present all enlisted personnel for the program are being selected from the fleets after nomination by their respective service force commanders. Personnel selected will pioneer in a new and expanding field the far reaching effects of which can only be estimated at this time.

Personnel will receive highly specialized theoretical and practical training similar to that presently given to submarine personnel in training for assignment to nuclear powered submarines.

• **EDO, AEDO, SDO APPLICATIONS**—The Chief of Naval Personnel is now accepting applications from permanently commissioned officers of the Line of the Regular Navy, for designation as Engineering Duty, Aeronautical Engineering Duty or Special Duty Officers. Applicants not above the grade of lieutenant are eligible.

Categories in which candidates may apply are as follows:

Engineering Duty: General (Code 1400), Electronics (Code 1400), and Ordnance (Code 1450).

Aeronautical Engineering Duty: General and Electronics (Code 1510), and Aerology (Code 1530).

Special Duty: Communications (Code 1610), Naval Intelligence (Code 1630), and Public Information (Code 1650).

Applications are particularly desired from officers who have completed a postgraduate course of instruction associated with these specialities and from aviation officers (Code 1350) for designation for Aeronautical Engineering Duty.

Applications are not desired from permamently commissioned warrant officers now serving in a temporary grade of ensign or above.

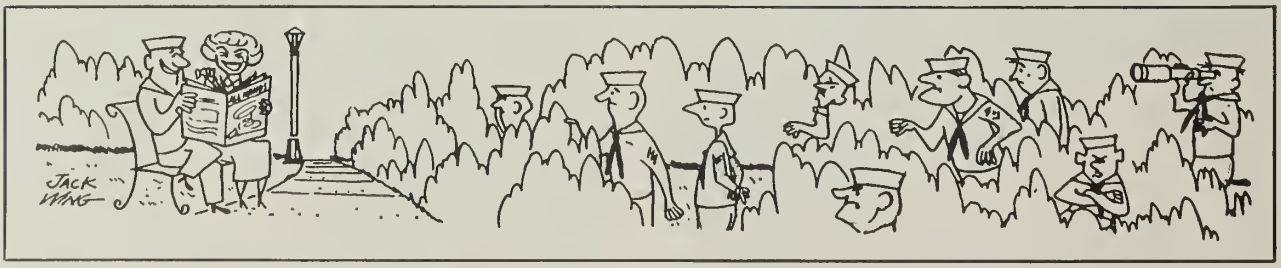
Applications should be forwarded via official channels and cognizant material bureaus, the Chief of Naval Operations, or the Chief of Information, as appropriate. These requests must be submitted in time to reach the Chief of Naval Personnel (Attn: Pers B1137) by 16 May 1956.

The Chief of Naval Personnel will acknowledge receipt of each application. The requests of qualified applicants will be referred to special selection boards which will be convened in the Navy Department on or about 31 May 1956. Each applicant will be advised by letter of his selection or non-selection on about 16 Jul 1956.

• **DEPENDENTS' MSTS TRAVEL**—Dependents of personnel attached to ships and units operating rotationally in overseas areas are not eligible for transportation on MSTS ships, according to a recent ruling by the Chief of Naval Operations. BuPers Inst. 4650.8A points out, however, that special cases of ships and units spending long periods of time outside the continental United States will be considered on an individual basis.

• **RESERVE PAY CHANGE**—Active duty pay and travel allowances currently authorized for Reserve personnel being released from active duty may now be paid at the time of release, and without regard to whether the travel is actually performed, according to Alnav Two. Previously such payments have been made *after* release from active duty and *after* receipt of copies of the release orders containing an endorsement which stated the method of travel, itinerary and the inclusive dates of travel.

The Alnav also states that: 1) For Reserves released from a period of active duty which amounted to less than 90 days, travel time to the member's home of record at the time ordered to active duty will be based on the actual and necessary public surface carrier schedules over the



PASS THIS COPY ON — Nine other men are green-eyed because you're holding up ALL HANDS Magazine.

shortest usually traveled route; and 2) If the period of active duty was 90 days or more, travel time will be computed as above, except that if travel by private conveyance is specifically authorized in the orders, travel time to the member's home of record at time ordered to active duty will be computed on the basis of one day for each 300 miles, and one day for a fraction of 300 miles in excess of 150 miles.

When travel by private conveyance is authorized, travel status will be considered to begin on the date following the date of detachment, and distances will be determined in accordance with *Joint Travel Regulations* (Par. 4155).

Current instructions for the payment of pay and allowances for travel time incident to release of Naval Reservists from training duty remain unchanged.

• **AIR CONTROLMEN** — Air controlmen have been added to the list of rates who may not select any of the various options granted enlisted men on reenlistment under the provisions of BuPers Inst. 1306.25B.

The air controlmen were added to the list because of the distribution needs for this highly specialized rating. However, they can, upon reenlistment, express four choices for duty if they desire reassignment. In such a case every effort will be made to assign them duty in accordance with their preferences.

In another change to the instruction, four receiving stations have been listed which will provide places of reenlistment where there are no main recruiting stations in the area. These will reenlist men who have been out of the Navy more than 24 hours, but less than three months.

They are the Naval Receiving Stations at: Norfolk, Va.; Charleston, S.C.; Long Beach, Calif.; and San Diego, Calif.

• **WO APPOINTMENTS** — Seven more Navymen, including a Wave chief petty officer, have been appointed to the rank of warrant officer, W-1 with appointments effective upon acceptance.

The Wave, Alice G. DeAngelo, YNC, USN, was appointed a Ship's Clerk and upon acceptance became the only woman Warrant Officer, W-1, on active duty and fifth woman WO currently on active duty.

• **SELECTED FOR OCS** — The Chief of Naval Personnel has announced the names of 225 outstanding enlisted men in the Regular Navy who have been selected for training at the Officer Candidate School, Newport, R.I. Upon successful completion of the 16-week course at OCS, the candidates will be appointed ensigns in the Line or Supply Corps of the Regular Navy.

The OCS selection board picked 200 men as line candidates and 24 men as candidates for the Supply Corps. One Wave was selected for appointment in the Regular Navy line.

Those selected for the Officer Candidate School were part of the "seaman-to-admiral" integration program. They will receive Regular Navy appointments.

Other OCS candidates, coming from colleges and universities, are appointed ensigns in the Naval Reserve upon graduation.

Navymen who applied for an appointment under the integration program will not be notified individually of their selection or non-selection. Those who were selected have already received their orders to OCS.

• **ACCOUNTS OF DECEASED PERSONNEL** — As the result of a recent law passed by Congress, the Navy may now make payments directly to beneficiaries of deceased personnel when settling the accounts of such personnel — if a beneficiary or beneficiaries have been designated by the deceased. (See also page 53.)

Previously such accounts were turned over to the General Accounting Office for settlement of any unpaid pay and allowances, with payment being made to the estate of the deceased, the next of kin in the order of precedence specified by the law, or distributed to the persons determined to be entitled to it. This former less direct procedure naturally results in delayed settlement.

Under the new Act, GAO will continue to settle accounts of deceased personnel in cases where no beneficiary has been designated.

However, if a Navyman has on record a designated beneficiary — and keeps the record up to date—the Navy can make rapid payment of any pay and allowances due on the date of his death.

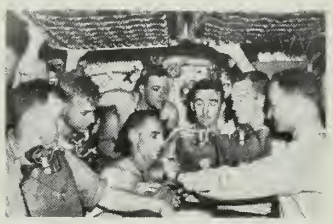
Full details may be found in BuPers Inst. 1760.15.

QUIZ AWEIGH

How much do you know about the Silent Service?

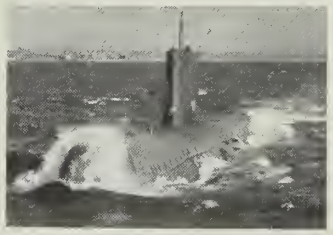
1. This is a part bow view of the guppy-snorkel submarine USS *Sea Leopard* (SS 483). A modern submarine of this type is closest in length to a (a) basketball court (b) ice hockey rink (c) football field.

2. If a sub is caught on the surface by enemy ASW ships or aircraft, it can submerge in less than (a) 50 seconds (b) 20 seconds (c) 90 seconds.



3. These men are receiving instructions in the use of the Momsen Lung. The primary use of this piece of equipment is for (a) RBA — rescue breathing apparatus (b) escape from a submerged submarine (c) underwater swimming.

4. The effective use of the lung, which is named after its inventor, Vice Admiral Charles B. Momsen, USN (Ret.), is limited to water depths of (a) 100 feet (b) 200 feet (c) 300 feet.



5. You should easily recognize this submarine as the USS *Nautilus* (SSN 571). The first submarine in the Navy, USS *Holland*, had a displacement of 75 tons. *Nautilus* has a surface displacement of approximately (a) 500 tons (b) 1500 tons (c) 3000 tons.

6. *Nautilus*, the only atomic-powered ship in operation in the U.S. Navy today, first radioed that she was "underway on nuclear power" on (a) 17 Jan 1955 (b) 24 Oct 1955 (c) 18 Jun 1955.

ANSWERS ON PAGE 57.

THE BULLETIN BOARD

Here's How Navy Wives Get Their Queen Allotment Checks

ALMOST EVERY NAVYMAN sees his disbursing officer on payday, but few Navy wives ever have a chance to meet *their* special disbursing officer. He is represented by the Allotment Division of the Navy Finance Center, Cleveland, Ohio.

The "ladies' disbursing officer" is too busy to be very social. The payment of allotments is big business. In addition to the 300,000 checks which go to Navy wives, some 200,000 are mailed to pay for Navy insurance and 400,000 go to other dependents, to savings and commercial institutions and for miscellaneous purposes. These 900,000 checks add up to an expenditure of approximately $60,000,000 every month.

This sizeable disbursement deeply affects the lives, welfare and happiness of a large percentage of our Navymen and their wives—not to mention their creditors.

The Finance Center is exceedingly proud of the fact that all allotment checks are now mailed on the last day of each month and, at the same time, overpayments from unauthorized releases and late receipt of stop authorizations have been reduced to the lowest point in its history. It has reason for its pride.

Chances are, you wouldn't recognize a stop authorization if you stumbled over one, but accountants and administrative personnel can fully appreciate the significance of the stepped-up mailing date. Nevertheless, the story of the problems involved and how the Allotment Division solved them will give you a good idea of how the division works and demonstrates the efforts made to render Navy wives and dependents the best service possible.

Earlier, all Queen allotments were mailed on the second day of the month following the month for which payment was due. Checks for December, for example, were mailed on the second of January. All other allotment checks were mailed on the fifth day of the month following the month for which payment was due. This frequently meant that a Navy wife, living in a foreign country with her husband would find her rent, light, heat and other payments due on the first of the month and her allotment check would not arrive until the 10th of the month, or later. This made for certain strains on occasion and didn't help the family credit.

However, stepping up the deadline was not simple. Here are some of the factors involved:

- Checks for more than 900,000 allotments must be mailed each month.
- Each check must be printed, signed, inserted in envelopes and sealed by mechanical equipment. The use of this equipment means that all operations must run exactly on schedule.
- Any upward revision of the mailing schedule would require the use of more equipment and thus greatly increase costs.
- Mailing all allotment checks on the last day of the month would burden the Post Office with more than half a million checks, since retired and retainer checks are also issued on the last day of the month by the Finance Center.
- Money cannot be paid before it is earned. Each monthly allotment payment covers the money earned from the first to the last day of the month.
- Overpayments would increase.
- Changes of address cannot be processed as late as the last day of the month. This is always a problem, as the Allotment Division receives about 20,000 changes of address a month.
- Because of earlier mailing dates, there would be a delay in processing increased allotment payments.

For these reasons, earlier attempts to advance the mailing date of checks just hadn't worked. The last three factors gave the most trouble, because any improvement in good will and morale created by more prompt receipt of checks was more than offset by these three factors.

The accounting gimmick employed was the "suspense voucher." In essence, a suspense voucher permits a great proportion of the work to be processed in other than peak periods. For example, all late receipts are put in "suspense" and handled to the very last minute as a separate voucher, then merged after the checks have been mailed.

While this might not make much sense to you, the effect that the suspense voucher produces does make sense. Why? It enables *all* checks to be mailed on the last day of the month (with little, if any, increased cost to the Government).

In its efforts to prevent erroneous mailing of checks, and to get checks to its payees as soon as possible, the Allotment Division has always processed requests to discontinue allotments and changes of address until two hours before actual mailing time. With the advanced mailing dates, the increased late stops and changes of address to be processed became a serious problem. Today, all orders to stop payments received within 24 hours after the checks have been mailed result in a message to the appropriate postmaster requesting return of the checks.

The Allotment Division also makes every effort to speed up new allotment payments received *after* the established receipt date. For example, all orders to start payment received up to the 26th of the month are specially processed so that a check can be mailed on the last day of the month. Start orders received

All-Navy Cartoon Contest—
N. F. O'Connor, AGC, USN.

"I see a long ocean voyage!"

after that date are handled as retroactive payments so that a check can be released within a week.

If, for example, a Navyman is married on the 15th of the month, files his NavPers Form 668 and registers his Q allotment so it reaches the Finance Center by the 26th, his wife's check will be mailed on the last day of the month. If the authorization is received after the 26th, she will receive a check four or five days after the authorization is received. Without this special handling, the check would not be received until the following month.

To insure more prompt delivery of allotment checks, all those destined for foreign countries and overseas activities are now airmailed. This is a considerable item, since 18,000 checks are mailed each month to 62 foreign countries or overseas activities.

That's the story behind the speedup of your allotment checks. It's just one more phase in the Navy's continuing efforts to make your Navy career a satisfactory one.

Medical Department Course, Part Two Now Available

The Medical Department correspondence course, *Manual of the Medical Department, Part II* (NavPers 10709), is now available for enrollment by Regular and Reserve officer and enlisted personnel of the Medical Department. This course is designed to familiarize Medical Department personnel with procedures to be followed in performing professional and administrative functions.

It covers physical standards, physical examinations, and physical profiling, including necessary criteria concerning the use of forms and reports for recording physical examination findings.

The course consists of eight assignments, and is evaluated at 18 Naval Reserve retirement and promotion points.

Application for enrollment should be submitted on Form NavPers 992 (Rev. 10-54), (with appropriate change in the "To" line) forwarded via official channels to the Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Maryland.

HOW DID IT START

NAS Lakehurst

The Naval Air Station at Lakehurst, N. J., is the oldest and largest lighter-than-air base in the United States. Located 65 miles south of New York and 50 miles east of Philadelphia, it covers an area of more than 11 square miles.

The site on which the station now stands was originally an artillery and ammunition test range run by a contractor for the Imperial Russian Army and by the U. S. Navy under joint agreement. During World War I, it was used by the U. S. Army for similar purposes. In 1921, the Navy selected the site for construction of the USS *Shenandoah*, and Lakehurst facilities have in the past been used to house and service the famous rigid airships *Shenandoah*, *Los Angeles*, *Akron*, *Macon*, *Graf Zeppelin* and *Hindenburg*.

Hangar One is constructed of reinforced steel covered with asbestos shingles. It is 188 feet high, 264 feet wide and 807 feet long. It is so large that, it is claimed, condensation of water vapor in the air can cause it to rain inside the closed hangar.

Hangars Five and Six located to the west of Hangar One are the largest all-wood structures of their type in the world. Each hangar is 1000 feet long and 240 feet wide. Three football games could be played simultaneously in each of the hangars, with plenty of room for spectators. Nevertheless, housing airships in these hangars requires extremely careful ground-handling for there is very little room to spare.

In 1932 one of the Navy's most beautiful chapels was erected at Lakehurst by the American Legion of New Jersey in tribute to all men of the air, living or dead. Today, this Gothic style chapel is known as the "Cathedral of the Air."

NAS Lakehurst carries on lighter-than-air experimental and developmental work, provides base facilities and logistic support for three Fleet squadrons, a Naval Reserve airship squadron and an HU squadron. In

addition, the air station conducts all overhauls and major repairs to airships as well as several Navy and Marine helicopter and fixed wing aircraft. Until recently, it conducted basic training of all non-pilot personnel in the airship field.

Helicopter Squadron Two with headquarters at Lakehurst provides helicopters required to operate with the Atlantic Fleet. This squadron's shipboard rescue and utility operations have extended from the Arctic to the Antarctic regions and as far east as the Mediterranean and west to Korea.

Airship Squadron Three is an operational unit of the Atlantic Fleet. It participates in antisubmarine warfare phases of Fleet maneuvers and coastal patrols from Nova Scotia to the Caribbean.

The Lakehurst Naval Air Reserve Training Unit exercises control over three Airship Reserve Squadrons and one heavier-than-air squadron.

Airship Early Warning Squadron One (ZW-1), the first airship airborne early warning squadron, was commissioned at NAS Lakehurst in January. It is now operating as a member of the U. S. early warning team.

New Rules Set Up for Admission To Navy Movie Theaters

Procedures in administering the Navy-Marine Corps Motion Picture Plan at U. S. bases have been revised in order to do away with unneeded reports and special "movie passes."

Instead of the former "movie passes," the following will now be considered proper identification for admission: uniform of the day; standard Armed Forces Identification Card; Military Dependent's Identification Card (DD Form 720); and copies of orders for Reservists on active duty for training.

Identification for dependents below the age of 16 years, and others not covered by the above credentials will be at the discretion of your commandant. Commandants of naval districts may, however, also retain use of passes in areas where local conditions make them necessary.

Details may be found in BuPers Inst. 1700.7 of 27 Jan 1956.

Enter Your Winners in the Inter-Service Photography Contest

The Sixth Inter-Service Photography Contest will be held in the Pentagon in Washington, D.C., about 1 Jun 1956. The Navy has been designated as host for this year's contest. The photo contest is for the beginning and amateur photographer and is designed to encourage participation in photographic activities.

All naval personnel and Coast Guardsmen on active duty for more than 90 days are eligible to enter photographs in the contest. Only photographs which have been taken by the individual contestant after 1 Jan. 1955 are eligible to be entered in competition. There's no limit to the number of photos a contestant may enter but a contestant can win only one prize in each class.

There are three classes of competition this year:

• *Class One* will be for single black and white enlargements. The size of the enlargements may vary from a minimum of 8 x 10 inches to a maximum of 16 x 20 inches.

• *Class Two* will be a series of three black and white glossy enlargements that must tell a picture story of one of the phases of the Navy Special Services Program. The photos should depict action, human interest and be suitable for use in publicity releases. The size of enlargements are the same as in Class One. The three photos in each series submitted must be the same size.

• *Class Three* will be for color transparencies. The size can vary from 35-mm. to 4 x 5 inches. For protection, the transparencies will be submitted in cardboard mounts and the face of the slide will be indicated by placing a red dot in the lower left hand corner of the mount.

All black and white entries which reach the level of the Department of the Navy Contest will automatically become the property of the Navy and WILL NOT be returned. Entries submitted in Classes One and Two should not include the negative.

Color transparencies will be returned to the contestants. However, the Navy Department will not be responsible for any loss or damage.

Entries deemed unsuitable for exhibition will not be considered. No official Navy photographs will be entered.

Subject matter should have appeal and meaning. Subjects may include, but are not limited to, landscapes, seascapes, still life, babies and children, animals, customs and people, documentary scenes of service life, architectural studies, interiors, flowers, abstractions and human interest subjects from daily life.

Entries will be judged primarily on impact, freshness of approach, story telling qualities, technical skill, print size and print quality.

Entries which are selected as winners in the District competitions will be entered in the Navy Department Contest. From this contest will be selected the photos and transparencies that will be entered in the Sixth Inter-Service Photography Contest.

The Commandant Third Naval District has been selected to be host for the Department of the Navy Contest. A qualified jury will be appointed by ComThree to select the winners. Entries in the Navy Department Contest must be received by the Third Naval District no later than 1 May 1956.

In the Navy Department Contest, awards will be given to the winners of first through seventh place in the black and white photographs. In Class Two, winners of first, second and third place will be given awards. In the color transparencies, awards will go to first, second and third place winners.

Honorable Mentions, which consist of Certificates of Accomplishment, will be awarded to seven contestants in Class One, two in Class Two and three in Class Three. In the Inter-Service Photo Contest, awards will be given to each of the twelve winners selected by three nationally recognized photographers.

Entries from all the services which are selected for the Grand Finals will be exhibited in the Pentagon, Washington, D.C., during the month of July 1956. A trophy for the most popular entry, as determined by public ballot, will be awarded at the conclusion of the Sixth Inter-Service Photography Exhibition.

Here is a run-down on the Navy regional eliminations and the areas they cover:

• ComFour—Activities within the First, Third, Fourth, Sixth, Eighth, and Ninth Naval Districts.

• ComFive—Activities within the Fifth, Tenth, and Fifteenth Naval Districts, Potomac River Naval Command, Severn River Naval Command; Fleet- and shore-based units of the Atlantic Fleet including Atlantic Fleet units operating under CinCNelm.

• ComEleven—Activities within the Eleventh, Twelfth, Thirteenth, and Seventeenth Naval Districts; all Pacific Fleet units on the West Coast.

• ComFourteen — Activities within the fourteenth Naval District and activities ashore and afloat in the Hawaiian area and west of the Hawaiian Islands.

Complete details and rules for the contest are contained in BuPers Notice 1700 of 6 Feb 1956.

All-Navy Cartoon Contest—
W. P. Duensing, HM1, USN.

"Ah, avast there mates, you've embarked a new mate, coming on board for duty . . ."

All-Navy Cartoon Contest—
W. P. Duensing, HM1, USN.

". . . No shoeshine . . . No shoeshine . . . No shoeshine . . ."

SecNav Policy Set Forth on Voluntary Separation Of USN and USNR Officers

Current policy concerning the voluntary separation of Regular Navy and Naval Reserve officers (except officers of the Medical and Dental Corps) has been set forth by the Secretary of the Navy in SecNav Inst. 1920.3. The policy has been based on officer personnel requirements for the present and the forseeable future and is set forth by SecNav under his authority to act for the President, since officers of the Navy serve at the President's pleasure and no terminal dates are established for their commissions.

The established criteria for voluntary separation are as follows:

Permanent USN Officers (men)—Permanent Regular Navy officers who submit their resignations may, except in unusual circumstances, expect favorable action on their request if they have fulfilled the service requirements listed below:

- Basic required service period of four years' active commissioned service, which may include time spent undergoing advanced training or graduate instruction.
- Completion of additional service requirements incurred as a result of advanced training or graduate instruction. The duration of this additional service is established for each individual at the time such training or instruction is commenced and must be served after completion of such training.
- Where total active and inactive commissioned service is less than eight years, or less than six years in the case of officers commissioned after 9 Aug 1955, favorable action on a resignation will normally be contingent upon acceptance of a commission in the Naval Reserve.

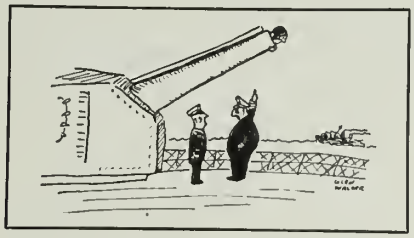
USNR Officers (men)—Naval Reserve officers who have completed their period of obligated active duty and whose total active and inactive commissioned service is eight or more years (six or more years for officers commissioned after 9 Aug 1955), may submit their resignations and normally expect favorable action thereon.

Women Officers (USN and USNR)—The criteria for acceptance of resignations from women officers of the Regular Navy and the Naval Reserve are the same as those for male officers *except* that resignations will normally be accepted from married women officers upon completion of two or more years of active commissioned service, plus any additional service incurred as a result of specialized training. Approval of resignations in this category will not normally be contingent upon the acceptance of commissions in the Naval Reserve. In addition, the provisions of the SecNav Instruction do not affect provisions of Article C-10338(2), *BuPers Manual.*

Temporary Officers—Temporary officers and warrant officers whose permanent grade is enlisted, may request reversion to their permanent enlisted status for the purpose of being discharged by reason of expiration of enlistment or of continuing on active duty in their enlisted ratings. Such officers may normally expect favorable consideration of their requests.

Final action on requests submitted will be governed by needs of the service. Therefore approval may be withheld until a qualified relief is available.

All-Navy Cartoon Contest—Glen Wolker



"I don't care what he did in civilian life . . . transfer that man by high-line!!"

Correspondence Course on Aircraft Electrical Systems

A new officer correspondence course, *Aircraft Electrical Systems,* (NavPers 10757), is now available at the Naval Correspondence Course Center. This course consists of five assignments and is evaluated at 10 Naval Reserve points credit.

Application for enrollment should be made on Form NavPers 992 (Rev. Oct. 54), forwarded via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, N. Y.

WHAT'S IN A NAME

CNATRA

When the Navy bought three airplanes in 1911, a clause in the contract stated that the builder of each plane should train a pilot and mechanic for it. As the airplane rapidly developed into a tactical weapon, the Navy began to train its own pilots and ground crews.

Naval air, in April 1917, at the brink of World War I, mustered a total of 48 officers and 239 enlisted men. The picture changed in World War II, however, when the naval air force become the Fleet's umbrella.

To meet the vastly increased need for trained aviation personnel, the Secretary of the Navy in 1942 established the Air Operational, Air Technical, Air Primary and Air Intermediate Training Commands. Then in December 1943, the Naval Air Training Command was established to coordinate the activities of the specialized air training commands.

Referred to as CNATRA pronounced "Sin-atra"), the Chief of Naval Air Training has command headquarters at NAS Pensacola, Fla. The training command's octopus-like liaison arms make it the largest continental naval command, with at least one activity in every naval district. The Command currently lists about 25,000 personnel billets.

The four major air training commands under CNATRA's present setup are: Naval Air Basic Training, which also has headquarters at NAS Pensacola; Naval Air Advanced Training, with headquarters at NAS Corpus Christi, Tex., Naval Air Technical Training, at NAS Memphis, Tenn.; and Naval Air Reserve Training, at Glenview, Ill.

Naval Gun Factory Builds Carriers

Shipbuilding has returned to the Naval Gun Factory, Washington, D. C., after an absence of almost a hundred years. The ships being turned out here today are a far cry, however, from the sloops-of-war which the early Yard turned out for an infant Navy.

Today's shipbuilding project is to turn out 71 *Forrestals,* the worlds mightiest flattop, before next June. However, the Gun Factory carriers will never be manned, will never defend our country against an aggressor.

The ships are models which will be used for display and identification training at naval installations throughout the country.

These *Forrestals* are exact replicas of the mighty original, cut down to 250th scale. Turned out of white pine, they are slightly over four feet long from bow to stern and 12 inches high from display case or water line to tip of radar mast.

The Gun Factory has repaired ship models in the past and has built one or two others. But the *Forrestals,* because of their smaller size and the exactness of scale required, have posed a considerable problem.

Some of the almost minute detail work on the superstructure — radar masts, antennas, bridge construction — are reproduced to scale from tiny pieces of brass. Much painstaking care and steady handwork are needed to form such items.

The three-strand railing used on many parts of the ship is another problem, mainly because it can be only about 5/16 of an inch from top to bottom strand.

When the job was started, a search of hobby and model shops turned up extra-small model railroad rails which fill the bill up to a point. They are made with only two rails, however, so the third or middle rail must be soldered on, another not-so-small feat for steady hands.

Now that the bugs have been ironed out, the carriers are set up on an assembly line which will turn out six, then seven, and finally nine finished models a month. The first six were delivered early in November.

Like any other new production job, the carriers required special tooling. A special profiling machine was designed and built to shape the hulls to their proper contours, eliminating many hours of laborious hand work.

When completed, the models get a finish coat of Navy grey paint, then receive silk screen striping on the flight deck and superstructure.

As a final touch, the models are mounted on a mahogany-stained base which stands on removable metal legs. A plastic cover fits over the base as a protection and can be removed for instruction or other purposes. A metal shipping case, nicknamed the casket, completes the models' equipment.

Zellars Crew Sees Epidemic; Gives Dollars To Polio Fund

Uss *Zellars* (DD 777) is back in the news again. As before, she's leading the pack. This time it was the March of Dimes campaign that benefitted from the teamwork and generosity of *Zellars'* crewmen.

Digging deep into their dungaree pockets, *Zellars'* crewmen came up with $1570 for the recent March of Dimes campaign. This averaged out to a donation of slightly more than $6.00 per man.

What might have inspired the crew's generosity was the fact that some of them had recently witnessed a polio epidemic that struck some 40 Navymen and 100 dependents in Key West, Fla., area.

The original goal for the destroyer was set at $1000, but this was soon surpassed. Adopting the slogan "A Good Ship is a Generous Ship," the crewmen oversubscribed their goal by more than 50 per cent. No donation was for less than $5.00 and individual contributions ran as high as $45.00.

Zellars was earlier in the headlines when she very bravely challenged the huge aircraft carrier uss *Valley Forge* (CVS 45) to a football game in Lisbon, Portugal. The game, although lost by *Zellars'* team, was a fabulous success with more than 45,000 Portuguese witnessing their first American football.

Lineal Requirements Unchanged For USNR Officers Requesting Transfer to the Regular Navy

Many Reserve officers, including those on inactive duty, have written this Bureau requesting readjustment of their lineal positions, so that they may qualify for transfer to the Regular Navy under the current Augmentation Program.

The Bureau points out, however, that the lineal positions set forth in BuPers Inst. 1120.12D for the Augmentation Program for officers in the grade of lieutenant in the stated classifications were established after careful thought and consideration. And Instruction 1120.12D does not provide for the lineal adjustment of any Reserve officer to permit consideration of his application for transfer to the Regular Navy.

The lineal requirements already established are considered adequate to fulfill the Navy's needs for the rank and specialty defined in the Instruction, as no waivers of the lineal restriction will be permitted at the present time.

The Bureau, in view of the above, considers it very necessary that applicants conform strictly to the standards set forth in the Instruction in determining their eligibility for transfer to the Regulars.

BuPers Announces Changes in Emergency Service Ratings

Several changes to the Enlisted Rating Structure's emergency service ratings have been approved by the Secretary of the Navy. Although announced in BuPers Notice 1223 of 30 Jan 1956, the ratings will not go into effect until further notice. Personnel affected by the upcoming ratings will continue to advance in the ratings they now hold, and will not be changed from one rating to another until specific instructions regarding such changes are promulgated.

The newly-established emergency service ratings are:

1) Under *Aviation Electronics Technician:* Aviation Electronics Technician N (Communications and Navigation Equipment); Aviation Electronics Technician R (Radar); and Aviation Electronics Technician S (ASW).

2) Under *Aviation Machinist's Mate:* Aviation Machinist's Mate R

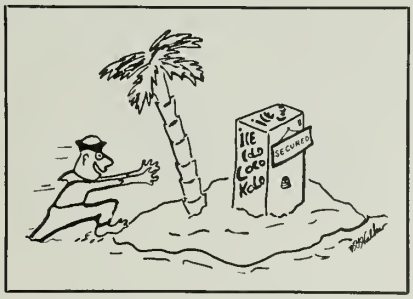
(Reciprocating Engine Mechanic); Aviation Machinist's Mate J (Turbojet Engine Mechanic).

The exclusive emergency service rating of Aircraft Carburetor Mechanic (ESA) is also established, while the following emergency service ratings are desestablished: 1) Boatswain's Mate B (CB Boatswain's Mate); 2) Aviation Machinist's Mate G (Carburetor Mechanic); 3) Aviation Machinist's Mate E (Engine Mechanic); and 4) Aviation Machinist's Mate F (Flight Engineer).

Deadline Nears for Rhodes Scholarship Applications, Officers, Midshipmen Eligible

Eligibility requirements and procedures for requesting Navy sponsorship in the upcoming Rhodes Scholarship competition have been set forth in BuPers Notice 1520 of 17 Jan 1956. Elections to the scholarships will be held in all states in December 1956.

All-Navy Cartoon Contest—H. G. Walker



Successful applicants for Navy sponsorship may enter competition either in the state of residence or the state in which at least two years of college education were completed.

Those candidates who are elected to scholarships by the Rhodes committee may expect orders to duty at Oxford University in an active duty status for the tenure of the scholarship. Scholars-elect will enter the university in October 1957.

The following personnel are eligible to request Navy sponsorship (if they meet eligibility requirements set forth by Rhodes trustees): 1) Men who are commissioned officers of the Regular Navy and Marine Corps now on active duty and who are graduates of the Naval Academy or an accredited civilian institution; 2) Naval Academy midshipmen who will receive their commissions in June 1956 or June 1957; 3) NROTC midshipmen who will receive their commissions in the Regular Navy or Marine Corps before 30 Sep 1956.

The deadline for applications (with necessary endorsements) is 1 May 1956; however, it is requested that an advance copy of the request be mailed as soon as possible to the Chief of Naval Personnel (Attn: Pers C1224).

Cities Go on Patrol

Patrol vessels, which previously were known only by hull numbers, will now be recognized by individual names, after cities of the United States.

The names assigned to 141 submarine chasers, escorts and rescue escorts are listed below. They were chosen from cities with a population between 2500 and 10,000.

The change, which became effective in February is in line with the Navy's policy of assigning names instead of numbers to as many ships as possible.

Of the 141 patrol vessels named, 32 are in commission and the remainder are in the inactive fleet.

Of the total, 101 are 173-foot submarine chasers (PC), 17 are 180-foot escorts (PCE), 8 are 180-foot rescue escorts (PCER), and 15 are 136 foot submarine chasers (PCS).

Here are the designations and hull numbers of patrol vessels with their new names:

PC-461—*Bluffton*
PC-465—*Paragould*
PC-466—*Carmi*
PC-470—*Antigo*
PC-483—*Rolla*
PC-484—*Cooperstown*
PC-486—*Jasper*
PC-487—*Larchmont*
PC-553—*Malone*
PC-560—*Oberlin*
PC-564—*Chadron*
PC-565—*Gilmer*
PC-566—*Honesdale*
PC-567—*Riverhead*
PC-568—*Altus*
PC-569—*Petoskey*
PC-571—*Anoka*
PC-572—*Tooele*
PC-579—*Wapakoneta*
PC-580—*Malvern*
PC-581—*Manville*
PC-582—*Lenoir*
PC-586—*Patchogue*
PC-588—*Houghton*
PC-589—*Metropolis*
PC-592—*Towanda*
PC-597—*Kerrville*
PC-601—*Arcata*
PC-602—*Alturas*
PC-603—*Solvay*
PC-606—*Andrews*
PC-617—*Beeville*
PC-618—*Weatherford*
PC-619—*Dalhart*
PC-620—*Bethany*
PC-776—*Pikeville*
PC-777—*Waynesburg*
PC-778—*Gallipolis*
PC-779—*Mechanicsburg*
PC-780—*Maynard*
PC-781—*Metuchen*
PC-782—*Glenolden*
PC-785—*Frostburg*
PC-808—*Ripley*
PC-817—*Welch*
PC-822—*Asheboro*
PC-1077—*Edenton*
PC-1079—*Ludington*
PC-1081—*Cadiz*
PC-1087—*Placerville*
PC-1119—*Greencastle*
PC-1120—*Carlinville*
PC-1125—*Cordele*
PC-1135—*Canastota*
PC-1136—*Galena*
PC-1137—*Worthington*
PC-1138—*Lapeer*
PC-1140—*Glenwood*
PC-1141—*Pierre*
PC-1142—*Hanford*
PC-1145—*Winnemucca*
PC-1149—*Susanville*
PC-1169—*Escondido*
PC-1170—*Kelso*
PC-1172—*Olney*
PC-1173—*Andalusia*
PC-1174—*Fredonia*
PC-1175—*Vandalia*
PC-1176—*Minden*
PC-1177—*Guymon*
PC-1178—*Kewaunee*
PC-1179—*Morris*
PC-1180—*Woodstock*
PC-1181—*Wildwood*
PC-1186—*Ipswich*
PC-1191—*Bel Air*
PC-1193—*Ridgway*
PC-1196—*Mayfield*
PC-1198—*Westerly*
PC-1201—*Kittery*
PC-1209—*Medina*
PC-12 2—*Laurinburg*
PC-1213—*Loudon*
PC-1216—*Elkins*
PC-1225—*Waverly*
PC-1228—*Munising*
PC-1229—*Wauseon*
PC-1230—*Grinnell*
PC-1231—*Tipton*
PC-1237—*Abingdon*
PC-1240—*Culpeper*
PC-1242—*Port Clinton*
PC-1244—*Martinez*
PC-1246—*Canandaigua*
PC-1251—*Ukiah*
PC-1252—*Tarrytown*
PC-1260—*Durango*
PC-1263—*Milledgeville*
PC-1546—*Grosse-Pointe*
PC-1547—*Corinth*
PC-1569—*Anacortes*
PCE-842—*Marfa*
PCE-843—*Skowhegan*
PCE-845—*Worland*
PCE-846—*Eunice*
PCE-870—*Dania*
PCE-874—*Pascagoula*
PCE-880—*Ely*
PCE-892—*Somerset*
PCE-894—*Farmington*
PCE-895—*Crestview*
PCE-899—*Lamar*
PCE-900—*Groton*
PCE-902—*Portage*
PCE-903—*Batesburg*
PCE-904—*Gettysburg*
PCE-877—*Havre*
PCE-886—*Banning*
PCER-849—*Somersworth*
PCER-850—*Fairview*
PCER-851—*Rockville*
PCER-852—*Brattleboro*
PCER-853—*Amherst*
PCER-855—*Rexburg*
PCER-856—*Whitehall*
PCER-857—*Marysville*
PCS-1376—*Winder*
PCS-1378—*Provincetown*
PCS-1380—*Rushville*
PCS-1383—*Attica*
PCS-1384—*Eufaula*
PCS-1385—*Hollidaysburg*
PCS-1386—*Hampton*
PCS-1387—*Beaufort*
PCS-1392—*Deming*
PCS-1400—*Coquille*
PCS-1401—*McMinville*
PCS-1413—*Elsmere*
PCS-1423—*Prescott*
PCS-1431—*Grafton*
PCS-1444—*Conneaut*

Service in Armed Forces Qualifies Certain Non-Citizens To Petition for Naturalization

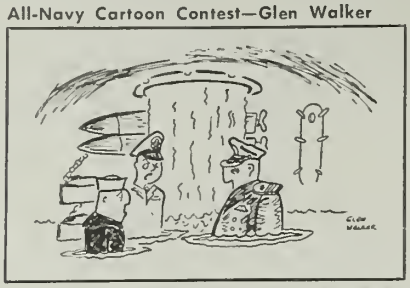
Certain Filipinos and other aliens who were eligible for naturalization under Section 324 of the Nationality Act of 1940, but who were not naturalized before that Act was cancelled, may be naturalized under provisions of the Act if they file a petition while still in military service, or within six months after separation from military service.

The Nationality Act of 1940 authorized naturalization of non-citizens who had served honorably in the armed forces of the U. S. for a total of three years, without their meeting such requirements as lawful admission into the U. S. for permanent residence. This act was repealed, effective 24 dec 1952, by a law which established quota controls and required that non-citizen military personnel must establish "lawful admission" under the quota for their country.

However, a recent court decision held that the savings clause of the 1952 Act preserved the rights of those eligible for naturalization under the 1940 Act. Thus, if you are a non-citizen who served honorably in the armed forces for a total of three years or more before 24 Dec 1952, you may again petition for naturalization under the 1940 Act—without regard to the normal requirement concerning lawful admisson into the United States for permanent residence.

BuPers Inst. 5802.2 lists the naturalization procedure for those meeting the naturalization requirements of the Nationality Act of 1940.

All-Navy Cartoon Contest—Glen Walker



"... says he heard a knock, so he opened the hatch!"

Revised Correspondence Course For CDs Is Available

A revised Enlisted Correspondence Course is now available to all enlisted personnel.

Driver 2 (NavPers 91574-1) is applicable to the rating of CD, and is evaluated at 15 retirement points. This course may be retaken for repeat Naval Reserve retirement credit. In making application use NavPers Form 580.

All applications should be sent to the U. S. Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, N. Y., via your commanding officer.

Navy's Freelance "Missionaries" Make a Hit Overseas

American sailors are finding the opportunity to be missionaries and goodwill ambassadors around the world.

Sailors of the Sixth Fleet in particular have been recognized for their marked interest in missionary work. Increasing numbers participate in combined sailor and civilian worship services and assist naval chaplains during visits to native churches and missionaries.

While USS *Coral Sea* (CVA-43) was in the Mediterranean during its annual cruise, liberty-bound personnel made 13 guided tours of 48 foreign churches and missions in 11 ports of Portugal, Spain, Italy, Greece, Arabia and Turkey.

Through native interpreters, the *Coral Sea* men participated in 24 local church services. One of the highlights of these combined services was the simultaneous singing of favorite hymns harmonized in many different languages.

"Our men report they feel the deep fellowship of worship even though they cannot understand the words of the native singers," Chaplain Oliver F. L. Wiese, of *Coral Sea*, said.

Similar testimonies can be found in the chaplain's offices of USS *Lake Champlain* (CVA-39), *Intrepid* (CVA-11), *Ticonderoga* (CVA-14), *Randolph* (CVA-15), and *Siboney* (CVE-112). Other carriers making less extended cruises report similar experiences.

In a recent cruise to Lisbon, Portugal, USS *Valley Forge* (CVS-45) offered to its Roman Catholic personnel the opportunity to visit the famous shrine of Fatima. Many also attended Mass at the historic Chapel of the Apparitions.

In Lisbon, the men were so impressed with a seminary and hospital maintained by a religious group that, after their visit, a sizeable gift was left to continue the work. Similar tours during previous cruises were made to the native churches of Halifax, Nova Scotia; and St. Thomas, Virgin Islands; by the crew of *Valley Forge*.

Not long ago, a group of *Coral Sea* sailors stood at the historic Areopagus in Athens, Greece. This was for most of them the first visit to the Old World center of culture. They stood on Mars Hill before a bronze plaque on which were some historic words—St. Paul's famous sermon to "Ye men of Athens" recorded in the 17th chapter of Acts. New Testaments came out of jumper pockets while the men read one of the best known sermons in all religious literature on the site where it was first preached.

"My attitude toward the individual missionaries has changed greatly," said Chaplain A. L. Murray, of *Randolph*. "I had always thought the best work was being done by the missionaries affiliated with a denomination, but these freelance missionaries are doing a marvelous job."

Some of these freelance missionaries are teaching in the native schools, others work for large American-affiliated corporations, and teach in the evenings.

It is frequent practice, as a U. S. Navy ship leaves a foreign port, for the crewmembers interested in a specific phase of the church's work to leave a donation to assist local Christian work.

The total good accomplished by such experiences is beyond words. Not only do visiting sailors come in contact with other cultures, they also begin to see more clearly the length and depth and height of the Christian experience around the world.

Beneficiary Can Now be Named for Arrears in Pay

A new law has ben passed which gives you the right to designate a beneficiary or beneficiaries for any unpaid pay and allowances (arrears in pay) due you upon the date of your death. Under this new law, you may also designate the amount paid to each beneficiary.

The Department of the Navy will make settlement to the designated beneficiary or beneficiaries as you list them. However, if you name no beneficiary, the case will be processed through the General Accounting Office.

Designations or changes of beneficiaries by Navymen, including members retired or transferred to the Fleet Reserve on or after 1 Jan 1956, must be made on DD Form 93-1 (revision of DD Form 93). Navymen who were on the retired or retainer pay rolls on 31 Dec 1955 must designate their beneficiaries on NFC Form 1786A which is distributed by the Navy Finance Center.

It is vitally important that you fill out and file the DD Form 93-1 whenever you have a change in beneficiary. Public Law 147, 84th Congress, provides that any payment made under this Act shall be a bar to recovery by any other person of any amount so paid. This means that unless you have an up-to-date DD 93-1 on file, the arrears in pay due you might be paid to a person whom you no longer want listed as a beneficiary.

If you already have a DD Form 93 filed in your service record, designating your beneficiary for the six months' death gratuity, that will be considered as a designation of beneficiary for purposes of this Act.

All pay and allowances which are due you from the Department of the Navy will be paid to your survivors in the following order:

- To the beneficiary or beneficiaries named by you and filed, before your death, either in your service record at your duty station or your record in the Bureau of Naval Personnel.
- If you do not list a beneficiary, to your wife, or husband in the case of Waves and Nurses.
- If you list no beneficiary or have no surviving spouse, to your child or children.
- If none of the above, to your parents or the survivor of them.
- If there be none of the above, to the legal representative of your estate; or if there be none, to the person or persons determined to be entitled to such payments by the laws of your State of domicile.

Your beneficiary designation must be on file, at the time of your death, either in your service record at your duty station or in the Bureau, in order to be effective. In the case of Navymen on the retired or retainer pay rolls, it means the latest written request on file at the Navy Finance Center, activity maintaining service record in the field, or the Navy Department.

According to the Comptroller General in General Regulation No. 124, the term "pay and allowances" includes such items as per diem, travel, transportation of dependents, transportation of household goods, savings deposits, etc., found due from the Department of the Navy.

WAY BACK WHEN

Navy Takes California

Before the days of rapid communicatian, ship captains frequently had little cantact with the Navy Department, and little news af warld canditians ather than what cauld be gleaned in the parts visited and fram ather ships.

That was the situatian in 1842 when Commadare Thamas Ap Catesby Jones seized Califarnia and held it far 36 haurs—althaugh peace existed between the U.S. and Mexica.

During the few years previaus, the state af Califarnia was a state af confusian: Spain had ceded her rights to the Republic of Mexica; the Russians had sald their stake ta John Sutter; the British were interested in the territary, and the U. S. also wanted the "Galden West." In mid-1842 the United States had a small farce af three ships, *Dale*, Cyane and *United States*, aperating within striking distance af the California caast; while the British had Admiral Thamas and a fleet patralling the coastal waters, awaiting an appartune moment to strike. In September 1842, hawever, both farces were in the Peruvian harbar af Callaa—when the English fleet sailed quite suddenly, and under sealed orders at that.

Almast within hours, Janes came acrass an item in a New Orleans newspaper asserting that Mexica had ceded Califarnia to Great Britain far $7,000,000. Janes, assuming that a state af war would autamatically exist between Mexico and the United States and that the British fleet was up ta na gaad, cleared the harbor within 30 minutes, sending *Dale* ta Panama with a report for Washington, while heading Cyane and *United States* far the Califarnia caast. En raute, the cammadare wrate a letter to the Secretary af the Navy, painting aut that he had received no communicatian since his sailing arders nine months previausly, and that what he was abaut ta da was confined "strictly ta what I may suppase wauld be yaur views and orders, had yau the means af cammunicating them ta me."

Manterey, the Mexican capital af Califarnia, was captured an 20 Oct. 1842 withaut a single shat being fired. The Mexican flag was hauled dawn, U. S. calars raised, and terms af accupation arranged. All dealings with the Mexican departmental gavernment were quite friendly.

On the fallawing day, Cammadare Janes went ashare ta survey the situatian in his canquered territary. In checking aver the Mexican gavernment's papers and port archives, he came upan a very disturbing dispatch: a dacument dated August 4th explicity declared that na state af war existed and nane was imminent.

Janes, having captured the capital withaut reason, regretfully made a decision, "No war, no capture!" With apalagies and proper ceremonies he delivered the tawn back ta Mexican officials — after an occupatian which had listed same 36 haurs. Embarrassment was the mildest of his feelings.

As a result of his hasty actian, the government relieved Commodare Janes af his cammand, but in recagnition af his vigilance did sa withaut censure.

Just four years later, hawever, the Pacific Squadron (then under Cammadare Slaat) once again raised American calars aver the territary, and in September 1850 Califarnia was praclaimed a state.

What You Should Know About the Survivor's Annuity Program

If you are nearing completion of 17 years' service, you are reminded that the time has come to take a good look at what provisions have been made for your dependents—otherwise you may realize too late that you haven't made adequate plans for their support after you're gone.

Sometime after you reach your 17th year of federal service, you will be given a chance to apply for the "survivor's annuity" set forth in the Uniformed Services Contingency Option Act (Public Law 239, 83rd Congress). This so-called "survivor's annuity" is not one of the traditional survivor's benefits to which your family is automatically entitled upon your death—you must apply for the annuity and must give up a part of your retired pay to defray cost of participation in the plan (the application form, NavPers 591, will be sent to you without any request on your part). This, however, is your best method of insuring that your surviving dependents will receive a monthly check after your death.

Here is how—and what—you can provide for your dependents under the annuity plan:

You may elect to receive reduced retired pay so as to provide an annuity equal to one-half, one-fourth, or one-eighth of the reduced amount of the retired pay, the annuity to be payable on your death to your widow and/or children.

There are four options which you may elect to include in your annuity:

1. *Annuity for the widow*—payable to or on behalf of a widow or widower, to terminate upon his or her death or remarriage.

2. *Annuity for the child or children*—payable to or on behalf of the surviving child or children, the annuity to terminate when there ceases to be at least one surviving child, unmarried and under 18 years of age (except that if there is a child unmarried and over 18 years of age incapable of self-support because of being mentally defective or physically incapacitated and that condition existed prior to his reaching 18, the annuity will terminate either upon his marriage, death or recovery from the disability.)

3. *Annuity for the family*—payable to or on behalf of the widow and surviving children, the annuity to terminate upon the death or remarriage of the widow; if later, the first day of the month in which there are no surviving children who are under 18 years of age and unmarried, or as listed in the exception above for defective and incapacitated children.

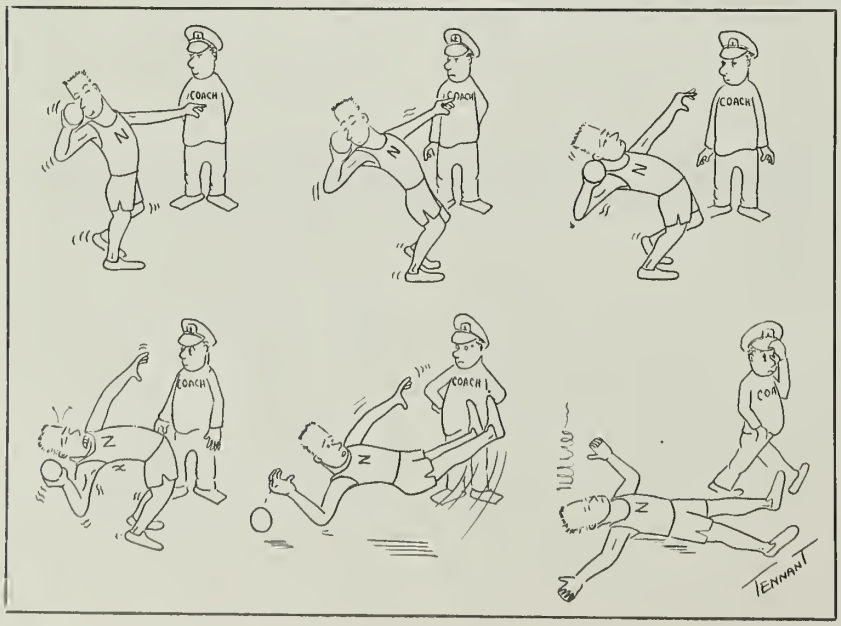
4. *Annuity with provision to cover contingency of beneficiaries predeceasing the retired member or otherwise becoming ineligible:* This option may be combined with 1, 2, or 3 above, and provides that no further deductions will be made in the member's retired pay commencing with the first day of the month following that in which there is no beneficiary who will be eligible to receive the annuity upon the member's death.

While it is true that participation in the annuity plan cuts down on your retired pay, it does so while you are still in a position to support your family, *and guarantees that your family will not lack support in case of your death.*

A quick look at the four major monetary benefits for survivors listed below will show you that your dependents are not likely to receive any long-range monthly income, once you leave active duty, from such sources as the Veterans Administration, the Social Security program, or the $10,000 Servicemen's Indemnity (since the indemnity coverage ceases 120 days after you enter the Fleet Reserve).

- *Six months' death gratuity*—This is a lump sum payment equal to six months' pay at the rate you were receiving on the day of your death—but it is payable only in the case of active duty; active duty for training and (under certain circumstances) inactive duty training; it is not payable to retired personnel on inactive duty or Reservists on inactive duty.
- *Indemnity and/or government insurance*—The free indemnity insures Navymen automatically, and at no cost to themselves, for $10,000 against death while on active duty and within 120 days after separation from active service. So unless you die on active duty or within 120 days after entering the Fleet Reserve, you can't expect your survivors to receive any income from that source. If you have NSLI, USGLI or civilian insurance in effect at the time of death, your family will, of course, receive whatever income these provide.
- *VA Death compensation*—Under certain circumstances a surviving widow and/or dependent children may be entitled to monetary compensation if you had a service-connected disability (although your death may not have been service-connected).
- *Social Security benefits*—Navy

All-Navy Cartoon Contest—
T. H. Tennant, YN1, USN.



men who have been on active service some time between 16 Sep 1940 and 30 Jun 1955 may have built up sufficient Social Security credits to earn some benefits for their survivors; *but,* if you retire in good health this benefit disappears—unless you earn Social Security benefits (through civilian employment) not based on military service. It also disappears if you retire for physical disability and elect to have your retired pay computed on your years of service rather than on your percentage of disability.

Other traditional benefits, while extremely helpful in cutting expenses for your survivors, do not provide any steady income.

What it boils down to is this: Regardless of whether you have a substantial amount of insurance—NSLI, USGLI or civilian policies—or income from some private source—the Contingency Option Act offers the most economical method of assuring financial support for your dependents. It should be considered as the primary opportunity for providing regular monthly checks for the dependents of deceased retired personnel. Once again—this is only available IF you sign up for the program. Full details of the Act may be found in BuPers Inst. 1750.1A.

Requests for Service Record Data by Former Navymen Go to New Armed Forces Center

Former Navymen wishing information contained in their service records must now address their inquiries to the Department of Defense Military Personnel Records Center. Discharged Naval Personnel Records Branch, 9700 Page Blvd., St. Louis 14, Mo. This unified armed forces activity has taken over the responsibilities of the Navy Records Management Center at Garden City, Long Island, N. Y., which has been disestablished.

The newly organized Department of Defense Military Personnel Records Center will maintain and service the personnel records of more than 35 million demobilized servicemen, including all Army and Air Force personnel separated since 1912 and all Navy and Marine Corps enlisted personnel separated since 1885.

Streamlined facilities at the new location will enable the DOD to furnish more efficient service to former members of the armed forces and their families who seek information for substantiation of benefit claims. The new centralized unit will also speed up the handling of inquiries from commercial firms, the VA, other Federal, State, and local agencies, and various veterans' organizations.

The six-story structure has 1¼-million feet of floor space and is located on a 44-acre tract. It is among the 20 largest buildings in the world. The building is virtually a self-contained unit, having its own cafeteria and dispensary.

Personnel desiring information from their own files may obtain it by writing to the newly situated Discharged Naval Personnel Records Branch. Generally, the information available is furnished without charge. By law, a nominal fee is charged when the service sought has been previously furnished. This charge is requested to defray a part of the cost of the research involved.

Moses Family Is Navy True-Blue—All Seven of Them

The name "Moses" doesn't have much of a sea going connotation but there is a family named Moses down Coxton, Kentucky-way, which is doing its best to associate the name with the sea.

Seven children of the Moses family have served in the U.S. Navy to date with two younger children thinking about joining in the future.

Latest Moses to join the Navy is John Q. Moses, SN, USN, now serving at the Naval Auxiliary Air Station, Cabaniss Field, Corpus Christi, Tex.

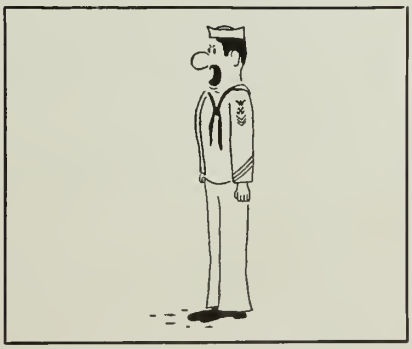
A roll call of the Moses family shows the following run-down of naval service: Kenneth, the oldest, served as a GM2 during World War II; Leonard enlisted during World War II and went on to win a commission and wings as a Navy pilot.

Tilman is now serving as an HM1 at the U.S. Navy Hospital in Bethesda, Md.; Janet served as a Wave during the Korean War: Dallas T. (for Texas) is an AO3; Carl is an FN serving in LST 1122, and John is the latest.

Still at home is Douglas, 11, and sister Betty, 16, Douglas is looking forward to joining the Navy while Betty wants to be a nurse and may well decide to become a Navy Nurse.

Sad to relate, the father of this Navy family has never worn the Navy blue, having served in the Army during World War I. Nevertheless it looks as though he has founded the beginnings of a Navy tradition, the Moses family.

All-Navy Cartoon Contest—
W. R. Maul, CTSN, USN.



"Aw right, Boots! When I say FRMMDINNN-HABHOABANNDEE! I don't mean IMWIDL-LEK KESARRASSDDHMMAA!"

Back in Yorktown—Different Ship, Same Spirit

The haunting memory of a World War II battle was revived momentarily for Jim Powell, BM1, USN, when he reported aboard USS *Yorktown* (CVA 10), for Powell was a former crew member of the ill-fated USS *Yorktown* (CV 5) sunk at the Battle of Midway.

Powell recalls that the "old" *Yorktown* had been on a 104-day battle cruise when, on 7 June 1942, she was sunk as a result of enemy action at Midway. Thirty enemy bombers buzzed overhead and all but five were shot down. One bomb put the ship's boilers out of commission and three more direct hits all but rendered the ship helpless. Powell himself was bomb-blasted into the water, and half frozen before he was rescued by a destroyer.

Now after spending a few months on board "new" *Yorktown* Powell finds advances in Navy ships have left little to remind him of the old *Yorktown* except her spirit.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 3 – Requested commanding officers to nominate enlisted personnel qualified to participate in Operation Deepfreeze II. Deadline was 1 March.

No. 4—Requested commanding officers to nominate qualified officers of certain rank and designator to participate in Operation Deepfreeze II. Deadline was 15 March.

Instructions

No. 1085.38—Establishes a standard method for recording progress in completing practical factors for all active duty personnel in pay grades E-3 through E-6.

No. 1120.24—Establishes policies and procedures for the submission of applications from qualified personnel for appointment in the Medical Service Corps USNR.

No. 1510.67 – Provides for local administration of correspondence courses for active duty EMs.

No. 1700.7—Amends certain policies and procedures being followed in administering the Navy-Marine Corps motion picture plan.

No. 1910.8A—Sets forth the policy and procedures relating to separation of enlisted or inducted personnel for reasons of dependency or hardship.

No. 1910.13—Incorporates into the Navy Directives System the report requirement showing the number of men discharged during recruit training period.

No. 1920.3—Promulgates current policies governing the voluntary separation of officers other than members of the Medical and Dental Corps.

No. 5802.2—Promulgates information concerning the eligibility for naturalization of certain Filipinos and other aliens who, before 24 Dec 1952, completed three or more years' honorable military service.

Notices

No. 1500 (24 Jan)—Announced Change No. 1 to BuPers Inst. 1500.25A, which is concerned with the convening dates for classes at BuPers training activities and certain schools of other services for the calendar year 1956.

No. 1306 (25 Jan)—Announced Change No. 1 to BuPers Inst. 1306.8G, which is concerned with the assignment of Naval Reserve and Naval Fleet Reserve personnel to active duty.

The United States Navy

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war.

Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

No. 1306 (25 Jan)—Announced Change No. 1 to BuPers Inst. 1306.21B, which is concerned with the procedures for reporting of male enlisted personnel for reassignment upon completion of shore duty.

No. 1223 (30 Jan)—Announced approved changes to the enlisted rating structure. (Specific instructions requiring further action will be announced at a later date.)

No. 1001 (31 Jan)—Invited applications from certain active duty Naval Reserve officers for assignment to duty in the TAR program.

No. 1120 (31 Jan)—Announced change of period of obligated service required of applicants from eight to six years in accordance with Reserve Forces Act of 1955.

No. 5213 (31 Jan)—Advised all activities of the correct NavPers forms to be used in applying for enrollment in officer or enlisted correspondence courses.

No. 1700 (6 Feb)—Promulgated information and rules concerning the Sixth Inter-Servise Photography Contest.

No. 1421 (7 Feb)—Announced the selection of enlisted men and women of the Regular Navy recommended for training leading to an appointment as ensign in the Regular Navy.

No. 1306 (8 Feb) – Announced changes to BuPers Inst. 1306.25B, which is concerned with options for assignment to duty of enlisted personnel on reenlistment.

No. 1550 (8 Feb)—Directed that the revised phonetic alphabet replace the present phonetic alphabet in the content of applicable training programs.

No. 7220 (16 Feb)—Stated that deadline to file application for mustering out payment has been extended to 16 Jul 1956.

No. 1120 (20 Feb)—Invited applications from permanently commissioned USN line officers not above the grade of lieutenant, for designation for Engineering, Aeronautical Engineering or Special Duty.

No. 1111 (21 Feb)—Announced the preliminary selection list of enlisted candidates for the NROTC.

No. 1440 (28 Feb) – Announced change in rating structure affecting Naval Reserve and Fleet Reserve personnel on active duty in the ratings of Aviation Machinist's Mate E, G, and F.

List of New Motion Pictures Available for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are designated by (C). Distribution began in February.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. Films leased under this plan are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

Wilson (459): Reissue—Drama; Alexander Knox, Charles Coburn.

The Square Jungle (460): Drama; Tony Curtis, Pat Crowley.

The Girl Rush (46-) (C): Musical; Rosalind Russell, Fernando Lamas.

Texas Lady (462): Adventure Drama; Claudette Colbert, Barry Sullivan.

Land of the Pharaohs (463): Historical Adventure; Jack Hawkins, Joan Collins.

The Second Greatest Sex (464) (C): Musical; Jeanne Crain, George Nader.

Sudden Danger (465): Drama; Bill Elliot, Beverly Garland.

Tennessee's Partner (466) (C): Adventure Drama; John Payne, Ronald Reagan.

The Kentuckian (467) (C): Pioneer Adventure; Burt Lancaster, Diana Lynn.

There's Always Tomorrow (468): Drama; Barbara Stanwyck, Fred MacMurray.

You're Never Too Young (469) (C): Comedy; Dean Martin, Jerry Lewis.

Two Guy Lady (470): Western; Peggie Castle, William Tallman.

Storm Fear (471): Drama; Cornel Wilde, Jean Wallace.

Shack Out on 101 (472): Melodrama; Terry Moore, Frank Lovejoy.

It's Always Fair Weather (473): Musical; Gene Kelly, Cyd Charisse.

Summertime (474) (C): Drama; Katharine Hepburn, Rossano Brazzi.

The Treasure of Pancho Villa (475) (C): Adventure Drama; Rory Calhoun, Shelley Winters.

Meet Me in St. Louis (476): Reissue - Musical; Judy Garland, Margaret O'Brien.

Inside Detroit (477): Drama; Pat O'Brien, Dennis O'Keefe.

The Warriors (478) (C): Adventure Drama; Errol Flynn, Joanne Dru.

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH is on page 45.

1. (c) Football field.
2. (a) 50 seconds.
3. (b) Escape from a submerged submarine.
4. (c) 300 feet.
5. (c) 3000 tons.
6. (a) 17 Jan 1955.

Membership in Naval Historical Foundation open to all Navymen

Membership in the Naval Historical Foundation is now open to all naval personnel. The Foundation is a private, non-profit, self-supporting, non-governmental organization dedicated to the preservation of the nation's heritage of maritime history and tradition.

The Foundation attempts to clarify the significance of sea power, including all its merchant and naval components, for the general public. One of the main functions of the Foundation is the operation of the Truxtun-Decatur Naval Museum in Washington, D.C.

The organization collects and preserves historical materials, including pictures, relics, manuscripts and books. It also reproduces and distributes naval historical material.

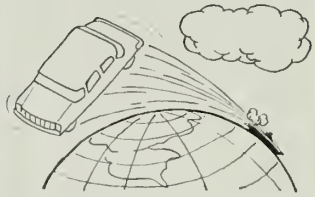
The Naval Historical Foundation receives its financial support mainly from a dues-paying membership. These resources are supplemented by income from trust funds and from irregular contributions by public-spirited individuals and groups.

Additional information concerning membership in the Foundation may be obtained by writing to Naval Historical Foundation, c/o Navy Department, Washington 25, D. C.

HERE'S YOUR NAVY

A new facility for testing and evaluating aircraft carrier launching and recovery systems is planned for NAS, Lakehurst, N. J. Construction, which was authorized in the Navy's fiscal '56 budget, is expected to take about two years.

The limited facilities now used by



the Navy at Mustin Field, Philadelphia, Pa., have become inadequate because of the restricted space available, their location within a congested air traffic zone and a densely populated area, and the extremely high performance equipment required for such testing.

The steam catapults used to launch modern Navy jet aircraft, for example, create sufficient power to

throw an average-weight automobile over a mile straight up.

The facility will be under the military command and coordination control of Commander, Naval Air Development and Materiel Center, Johnsville, Pennsylvania, and under the management control of the Bureau of Aeronautics. NAS Lakehurst will provide logistic support similar to that provided Fleet units.

The facility will be used to test

catapult and arresting gear equipment which is under development, and by the Bureau of Aeronautics to evaluate developed equipment. Conditions will closely simulate those aboard an aircraft carrier, with the latest high performance jet aircraft being used. Equipment, when proven, will be installed on the Navy's aircraft carriers.

BOOKS

PLENTY OF SALT FLAVORS THIS MONTH'S SELECTION

THE FASCINATION of the sea never fails and, fortunately for Navymen, the fascination of writing about the sea is equally strong. This month's choice, selected by the Bureau of Naval Personnel library staff, contains a generous range of fact and fiction. Here are some of the more noteworthy.

Tenth in the series which comprises the official naval history of the war, ***The Atlantic Battle Won,*** by Samuel Eliot Morison picks up where the first volume, *The Battle of the Atlantic*, left the tale untold. Primarily this is the submarine war, from September 1939 to April 1945, with a brief summary of the final period after the concentrated upward curve of disaster had turned in favor of the Allies.

Morison tells how the Atlantic sea lanes provided a central vital link in the chain that led to victory, and demonstrated the best example of strong sea and air power in cooperation. But this was reached after deadlocks in authority, after overcoming weakness of defensive operation, and lacks in special training.

Eventually the network of convoying extended to all water, the Atlantic, the Northern route, the Indian Ocean, the Mediterranean. The Allies won by sheer weight of resources and numbers, by intelligent employment of scientists, never better demonstrated than in the developments of anti-submarine warfare through radar and similar devices.

As in the earlier books, Morison succeeds in combining basic factual and statistical data with magnificent episodic story telling. He tells how the escort carrier group, the work of the surface hunters, the contribution of the army air, the new weapons and gadgets, all combined to defeat the underwater threat. Sound history and good reading.

Another book which tells a similar story as seen from the other side is ***U-Boats at War,*** by Harald Busch. It's primarily a story of individuals and individual incidents which have always given this particular phase of warfare its special, solitary heroism. Along with some notations on the cramped life on board a U-boat, corkscrewing and pitching through dangerous waters, there is information on the offensive and defensive objectives, on patrols, casualties, commanders, the development of new types of boats and the new countermeasures they faced.

The library staff has two candidates for the how-to-do-it department. One concerns social behavior in the Navy; the other, how to make the most of the weather.

The Answer Book on Naval Social Customs, is by two Navy wives, Ester Wier and Dorothy Coffin Hickey. It stems from an appreciation of the many problems which arise from a lack of knowledge of established naval social customs. Both are convinced that a return to rigid formality is no more desirable than the current laxness, and that somewhere between the two lies the key to social relations which can provide assurance and satisfaction to Navymen and their wives.

A question and answer book, it is comprehensive in its coverage of all types of social events in which the Navy wife is likely to attend. A useful glossary of naval terms is included as well as that vital subject—illustrations of naval insignia.

A Mariner's Meteorology, by CAPT Charles G. Halpine, USN, (Ret.) and LCDR H. Hagen Taylor, USN, presents modern meteorology in such clear and simple text and pictures that everyone who depends on the water for pleasure or his livelihood can learn this useful science.

Written from the mariner's point of view, it is full of practical information. There are no advanced mathematics or higher physics to confuse the reader who needs to understand and identify weather.

A working manual on weather reports, maps, codes and forecasting, this is the official book used to teach meteorology to future officers at the U. S. Naval Academy. Facsimiles are shown of the latest Weather Bureau forms, with detailed examples of their use. Equal treatment is given to weather maps and the standard international codes used by all ships for sending and receiving weather information.

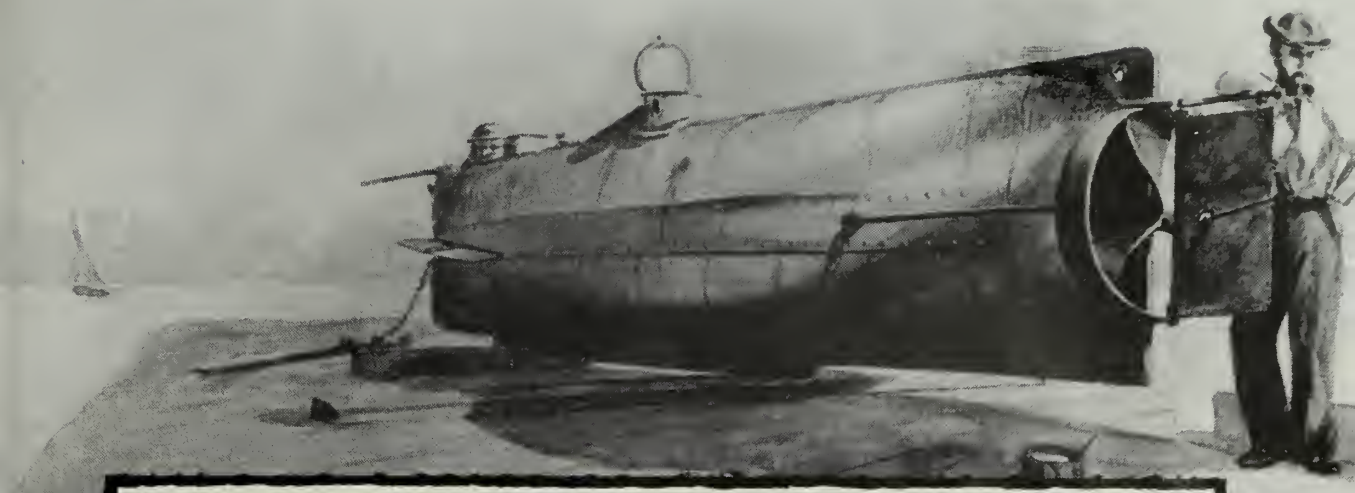
In the fiction field, ***Boon Island,*** by Kenneth Roberts also concerns the sea. The author has told a superb story of incredible hardship, a miracle of survival which is limited to a cast of 14 men marooned in midwinter on a bit of jagged rock. Shelter, food and drink were equally unobtainable. Based upon an actual event, the story is built up against the sustained fear of a crisis that is never fully realized, but continually threatened in the villainy of the first mate and his two co-plotters.

Another tale of man against circumstances is ***The Horse Soldiers,*** by Harold Sinclair. It's based on a little-known historical event of the Civil War, the so-called Grierson Raid, in which a Union brigade went through the heart of Confederate Mississippi. The central figure is Col. Marlowe, whose assignment is to cut the supply line to Vicksburg and then get himself out as best he can. It seemed an impossible task to everyone—to Marlowe, to his superiors, to the officers under him, and to the men. They lived 17 days in the saddle with food rations for five days, "living" off the land in an area already stripped to bare essentials. It *was* impossible, of course, but how it was done is the heart of an outstanding story.

SONGS OF THE SEA

His Ship a Home

The sailor's been to Hong Kong
And kicked the gong around.
He's sailed the whole world over
And one thing he has found:
No matter where he travels
Over ocean wave and foam —
His ship is still the best place
'Cause his ship is still his home.



CONFEDERATE SUBMARINES AND PT BOATS

When you think of submarines, you usually think of the new Navy. To the average person the history of submarines and submarine warfare begins in the twentieth century, but the story of the undersea boats goes back much further into the past. The first ideas and designs for submarines date back many centuries and there was one submarine, invented by a far-seeing American named Bushnell, that was actually used in the Revolutionary war (see ALL HANDS, *November 1951, page 59).*

This is an account of the little known story of the Confederate submarines and "Davids" (the latter were forerunners of the modern PT boat), and the role they played in the War between the States. Besieged with disasters in their development, these craft, nevertheless, were able to account for the neutralization of one Federal warship, New Ironsides, and the sinking of another, Housatonic, the first and only ship in history sunk by a submarine until World War I. (The submarine, however, was operating in an "awash position" when she made her kill.) These two incidents serve to remind us of the remarkable resourcefulness of the Confederate Navy which, under severe handicaps, pioneered in new techniques and weapons of war. But the value of these early craft was not so much in their military effectiveness as in the psychological impact they had on both the South and the North.

This account, written by Lieutenant (junior grade) Albert L. Kelln, USN, is reprinted from the Virginia Magazine of History and Biography.

THROUGHOUT HISTORY man has fought against man, state against state, nation against nation. The monetary value of the lives lost in these battle cannot be measured, for life is infinitely precious. However, from each battle clear evidence of man's ingenuity has come. The oppressed or outnumbered are always searching for some means by which to balance the scales of power, and the mighty are always aware that inert confidence can lead to ruin.

The Confederates after secession found themselves with no appreciable navy, little protection for their harbors, and few natural or industrial resources with which to build a navy or conduct sea warfare.

The South was in a very desperate situation by the middle of 1863, having completely lost control of the Mississipi River after the defeat at Vicksburg. Its seacoast was blockaded by an ever-growing force of Northern ships. Over-powered, the Confederate Navy directed its attention to developing a submarine to meet the superior numbers of the enemy.

THE FIRST SUCH BOAT built by the South to achieve a victory was not in the true sense of the word a submarine! it was instead a gunboat cut down to the water line and covered on top with iron plating. The exposed parts offered a very small target. The torpedo was mounted on a spar extending forward from the bow and was filled with rifle powder. The stack was hinged and could be lowered at will. Its top speed was five knots. The builders, comparing the size of their boat to a ship of the line, were reminded of the story of David and Goliath and with this in mind christened their first boat the *David*.

Lieutenant William T. Glassell volunteered to command the craft and chose as his first objective the USS *New Ironsides*, which was lying off Morris Island in Charleston harbor. Glassell received orders on September 22, 1863, to assume command of the torpedo steamer and, when ready, to proceed against the enemy fleet.

On October 5 with a crew composed of James H.

From "Confederate Submarines" by Lieutenant (junior grade) Albert L. Kelln, USN, published in the *Virginia Magazine of History and Biography* and copyrighted by the Virginia Historical Society. Reprinted with permission of the copyright owners.

CONFEDERATE torpedo boat *David*, a 'semi-submarine,' attacked Federal ship 'Goliath' in Charleston blockade.

Tomb, acting first engineer, Walker Cannon, pilot, and James Sullivan, second fireman, Lieutenant Glassell left Charleston and proceeded down the main ship channel, passing through the entire fleet of enemy vessels. At eight-thirty in the evening he was abreast the Federal frigate, *Ironsides*. Desiring to take advantage of the flood tide after attacking the frigate, he stood off for about thirty minutes until all conditions were favorable and then proceeded with the attack.

As the *David* closed on the *Ironsides*, she was hailed fifty yards away by Acting Ensign Charles W. Howard, the officer of the deck. Upon receiving no answer he gave the order to fire into the *David*. Lieutenant Glassell answered the hail with a blast from a double-barreled shotgun and fatally wounded Ensign Howard.

In less than two minutes, the spar torpedo extending forward from the *David's* bow exploded, sending columns of water upon the spar deck and into the engine room. The actions of the crew of the *Ironsides* were uncontrollable, and many jumped off the undamaged side, while others began to lower boats into the water. The only injuries sustained by the crew from the explosion were a broken leg by one member and a severe contusion by another.

Captain Stephen C. Rowan, the commander of the *Ironsides*, was able to persuade the men to return to the ship only after reassuring them that his superficial investigation showed the vessel to be undamaged. The confusion and noise had prevented organized fire being aimed at the small boat which had created all the disturbance. Two cutters were dispatched to search for the attacking craft, but they returned without success.

MEANWHILE, ON BOARD the *David* the confusion was almost as great. The torpedo which struck the *Ironsides* was six and a half feet under the surface of the water, and even though the *David's* engines were reversed for backing just prior to the explosion, columns of water thrown up in the air fell into the boat and led the crew to believe that the fires were out and the vessel was about to be swamped. Sporadic small-arms fire fell on the *David* as she hung under the quarter of the *Ironsides*. Believing all was lost, the crew of the *David* jumped overboard. Lieutenant Glassell and his fireman, Sullivan, swam off into the night, taking with them the only two life preservers.

Engineer Tomb, while in the water, called out their surrender, but the firing did not cease so he returned to the *David* and found there the pilot, Cannon, who had remained aboard. The fires were rebuilt, and after a short delay the vessel, with Cannon at the wheel, again passed through the enemy fleet and returned to Charleston. Lieutenant Glassell hailed a Northern coal schooner and was taken aboard as a prisoner. He was later questioned by Rear Admiral John A. Dahlgren aboard the *Philadelphia*.

Captain Rowan, after removing the coal from the bunkers in the *Ironsides*, discovered the damage caused by the torpedo was much more serious than he had at first reported. After remaining on station for several weeks, he requested that the ship be returned home for repairs. Stanchions and fore and aft pieces were jarred out of their iron sockets, which caused the decks to sag as much as three-quarters of an inch for thirty feet along the gun deck. Many small leaks developed from the shock of the explosion. Accordingly, on June 8, 1864, the *Ironsides* was ordered to return to Philadelphia as soon as she could be prepared for sea. The Confederates had noticed that after the attack the *Ironsides* was not participating in the usual barrages on Charleston and felt they had won a small victory. It was supposed that during the interval between the attack by the *David* and the *Ironsides'* removal from the blockading fleet she had not fired a shot.

ADMIRAL DAHLGREN, when reporting to Secretary of the Navy Gideon Welles, stated that if a charge of sixty pounds of powder was used in the spar torpedo, he could not see why six-hundred-pound charges could not be used in the future. He requested that the Northern Navy build similar ships and included in his report detailed plans describing the vessel he desired. He also wrote: "The secrecy, rapidity of movement, control of direction, and precise explosion indicate, I think, the introduction of the torpedo element as a means of certain warfare. It can be ignored no longer."

Precautions devised to frustrate future attacks were negligible, until reliable information from deserters on January 7, 1864, revealed that the South then had two torpedo boats ready for service, one being the *David*, which had attacked the *Ironsides*. The Northern officers did not receive the news of the *David's* successful return with much glee. The ironclads were then moved and anchored so they would be clear of each other's line of fire. They were also placed in shallow water as far as the blockading stations would permit. Fenders were rigged and netting, weighted by shot, was secured to their ends. Small boats were kept in the water as patrols and special shot was loaded in the howitzers. Other intelligence reports received by Admiral Dahlgren contained information about the number of new *Davids* being built by the Confederates. The largest number ever seen in the water at one time was three, but a total of twenty-five was reported to be on the ways in the vicinity of Charleston.

ONE SUBMERSIBLE, called the *American Diver* by a deserter, was described as being smaller but able to submerge completely. It raised the fears of the Northern officers to such a height that additional precautions were ordered throughout the blockading squadron.

The craft referred to as the *American Diver* actually was the third and last in a series of boats built from the original plans of Captain James McClintock, CSA. The first craft, the *Pioneer*, was built at New Orleans in the spring of 1862. Financial assistance was given by Captain H. L. Hunley and Mr. Baxter Watson. The material

needed for building the new boat was very scarce. Eventually a quantity of old iron plates was found and used in the construction. The vessel was driven manually by a screw propeller. Two men formed the crew, a pilot and one man to crank the propeller. McClintock equipped the boat with horizontal fins for diving and remaining below the surface. The torpedo designed for the submarine was to be attached on the keel of the enemy from the submerged vessel, and left to be exploded by a clockwork mechanism.

The newly designed submarine was rather difficult to control, but McClintock did destroy several old rafts and a schooner before he was compelled to scuttle the little craft. He felt it would be better to destroy all evidence of his work rather than let it fall into the hands of David G. Farragut's advancing fleet. Actually the vessel was discovered by the North, and detailed plans of it were sent to Washington.

McClintock, Hunley, and Watson escaped from New Orleans and went to Mobile, Alabama. There they held a series of conferences with Major General Dabney H. Maury, and he authorized them to begin the construction of another submarine. It is interesting to note that McClintock stated to Northern officials after the war that the design of the submarine and the idea for it was completely his own. He declared that he knew nothing of the work of David Bushnell or Robert Fulton.

The second submarine was built at Mobile in the shops of Park and Lyons. Lieutenant W. A. Alexander, an engineering officer of the 21st Alabama Regiment, gave much technical assistance in building the vessel. Like the original submarine, she was constructed from old boiler plates that had been discarded as unusable.

The career of the second submarine was as short-lived as the first. After being launched she completed several practice dives in the Mobile River, but shortly afterward she foundered in Mobile Bay. She was attempting her first attack on the Federal fleet when a squall blew up, and the little vessel filled up with water through an open hatch. No lives were lost in this sinking, but the boat was never recovered from the bay.

McClintock and Watson decided to resign from the enterprise when the Confederate government refused to render financial assistance for the construction of a third submarine. Hunley personally financed the third submarine, and Lieutenant Alexander supervised the construction. It is well to point out that neither McClintock nor Watson participated in the actual construction of the third boat, and that Hunley was not its inventor as some historians have written. Rather McClintock may have given advice to Alexander during the building, while Hunley merely retained his position as financer.

The materials for construction consisted of an old boiler twenty-five feet in length and four feet in diameter. The boiler was first cut longitudinally in half, and a foot strip of iron plating was riveted between the halves. Bulkheads extending nearly to the top were placed at both ends. The end compartments were shaped like rounded wedges and constituted the ballast tanks for controlling the buoyancy of the ship. The tanks were flooded by a valve in the center section of the submarine. At the bottom of each tank, pipes were connected to hand pumps, and the tanks could be emptied when the overboard valves were opened.

Attached to the bottom of the boat and constituting a keel were several flat iron castings, which could be released from within the center section. Their release would give the additional buoyancy necessary in case of emergency. In this manner she could rise to the surface without pumping water from the ballast tanks by hand.

The measurements of the finished vessel were about thirty-five feet in length, four feet in breadth at the midships section, and five feet in depth. Two conning towers were placed on the vessel extending upward about eight inches in height. Small ports of thick glass were built in each tower for observation. The hatches consisted of hinged doors seated on rubber gaskets and bolted from the inside.

Means for replenishing the air while submerged or surfaced consisted of a hinged pipe which could be raised, and opened by a valve to allow fresh air to enter. The device, however, proved to be impractical and, whenever the pilot wished to replenish the air, it was necessary to surface and open the hatches. The usual way of submerging was to flood the ballast tanks until the craft lost buoyancy. Then the pilot could incline the planes and by starting ahead on the screw he could dive to and hold the desired level. To surface the overboard valves were opened and the tanks were pumped out until their buoyancy returned the boat to the surface.

Counterbalanced diving planes about five feet in length were placed forward on the ship and were controlled by a lever in the front conning tower. The rudder was also controlled from the forward conning station, the pilot having merely to turn a wheel about shoulder height. The top sped of the vessel was approximately four knots so that it was very slow on answering the helm.

The ship received its motive power from a crankshaft which traversed the length of the boat and was attached to a twin-bladed propeller. The eight men who worked the crankshaft sat alternately facing each other on small brackets attached to the walls. The depth gauge was a U-shaped glass tube filled with mercury, one end of which was open to the outside of the boat. The gauge and front conning station were illuminated by a small candle.

The boat was originally designed to tow a copper cylinder containing a ninety-pound charge of explosives

RUSTED HULK of Confederate sub *Pioneer* shows riveted boiler plate construction. Conning tower was amidships. Powered by crew turning crankshaft, sub was capable of about four knots. Stern screw blades are missing.

TORPEDO blasted stern from *USS Housatonic. Hunley* has been credited as the first submarine to sink a warship.

from a two-hundred-foot towline. Upon sighting the enemy, the submarine would dive under the target and draw the torpedo against the ship where it would explode on contact. This proved impractical in shallow water, especially when the current was such as to bring the torpedo down upon the towing vessel.

The submarine was first tried out in the Mobile River and proved satisfactory as far as workmanship and construction were concerned. [On one try] she unexplainably failed to surface after one dive and took nine men to a watery grave, [but] she was later raised and prepared for action in Mobile Bay.

BEFORE SHE COULD be placed into action, General Maury decided that Charleston had greater need for the vessel because of the appearance of the powerful blockading fleet, including the *New Ironsides,* commanded by Admiral Dahlgren. He detached the boat from his command and transferred it to General Pierre G. T. Beauregard, who was in charge of the defenses of Charleston.

The *Hunley,* as she was now called, was loaded aboard two railroad cars and covered with tarpaulins. She arrived in Charleston on August 15, 1863, one week after rewards for the destruction of the Northern warships had been announced. The firm of John Fraser and Company announced that they would pay a sum of $100,000 for the destruction of the *Ironsides* or *Wabash* and $30,000 for every monitor sunk.

Lieutenant John Payne, originally aboard the CSS *Checora,* volunteered along with eight other men to man and operate the *Hunley.* The lust for reward money was indeed very great. The crew established as its objective the *Ironsides,* the newest Federal frigate. Her thick armor plating backed up by one and a half feet of solid oak was impregnable. The fire she delivered was fast and accurate, and in General Beauregard's opinion she was the most dreaded ship of the blockade.

As the *Hunley* was now outfitted with a qualified and experienced crew, Payne felt the time was ripe to attack. They started on the first dark night to accomplish their objective, but as they left the wharf, the bow wave of a passing steamer carried water into the open conning tower and swamped the little craft. Payne was standing in the open conning tower and was the only man to escape from the boat.

Undoubtedly Payne felt experience was a good teacher, for he had the boat raised and obtained a new crew. As soon as the crew gained the experience necessary to successfully handle the *Hunley,* Payne started again for the *Ironsides.* Fate intervened again, and the submarine capsized off Fort Sumter. Payne again escaped the watery death that most of his crew experienced, but never again ventured to set foot in a submarine.

THE BOAT WAS RAISED again by Hunley and Parks, of Lyon and Parks, the shop in Mobile where the *Hunley* was built. They obtained a volunteer crew from Mobile and quickly set about learning how to handle the craft. The men became very adept at controlling the boat in the space of a few weeks. However, carelessness crept over them, and once again the submarine failed to emerge from the depths. The accident occurred in sight of a wharf, where several men were watching the ill-fated cruise. The *Hunley* was attempting to dive and pass beneath the station receiving ship. As soon as she disappeared under the water's surface, air bubbles were seen rising to the top. The accident occurred in nine fathoms of water.

Three days later divers found the submarine nosed in the mud at a thirty degree angle, stern high. The hatches opened easily and must have been unbolted from the inside. The valve for the forward ballast tank was found open and the handle missing. The after tank was empty, containing only entrapped air. The unfortunate chain of events probably started when Hunley gave the order to dive and opened his forward valve completely. The order never reached the after conning tower, and consequently the aft ballast tank was not flooded. The boat took on a nose down attitude; and as Hunley rushed to secure the forward valve in the darkness, he knocked the handle off, and it fell into the bilge. It was mentioned earlier that the ballast tanks were not completely shut off from the central section of the submarine. The water, after filling up the ballast tank, ran over into the center section and likewise filled it up. The air that was present was forced into the after ballast tank. The accident occurred on October 15, 1863, just nine days after the successful attack of the *David* upon the *Ironsides.* Lieutenant George E. Dixon, CSA and Lieutenant Alexander requested permission from General Beauregard to operate the *Hunley* as soon as she was salvaged. Both of the gentlemen had had experience around the submarine, Alexander actually supervising its construction. The general, after much hesitation, granted his permission but in so doing broke his word which he gave after the last accident, that the ship was never to go out again.

The Federal blockade commanders took every precaution after the *David* incident, and many defensive measures were instituted. The lookouts were doubled, anchor chains were made ready for slipping, heavy rope nets were rigged from suspended booms, small boats patrolled on dark and calm nights, special ordnance was installed, and steam was carried at all times so there would be no delay in getting under way.

Dixon and Alexander conitnually drilled their submarine crew in the passing months until they were completely prepared for an attack. Since all of the Northern ships in the inner harbor had taken protective measures and were stationed in shallow water, Dixon decided it would be necesary to attack one of the ships in the outer harbor. He therefore decided to use a different type of torpedo that would be more effective. a

The *David,* after its heroic return, was often used to tow the *Hunley* from place to place. On one such trip the towed torpedo drifted into such a position that it nearly blew both ships out of the water. This was another reason for adopting a new type of torpedo.

The new torpedo consisted of a steel head backed up by ninety pounds of rifle powder. It was carried on the end of a ten-foot spar extending forward from the bow.

The steel head was to be driven into the wooden-sided vessel by impact and held there by saw-toothed corrugations. The exploder was attached to 50 yards of line. When the submarine had backed off this safe distance from the enemy, the rope would tighten and set off the detonator.

Dixon set as his objective the USS *Wabash* and left for it, each evening of favorable weather for several months with the ebb tide. He was always forced to return with the coming of daylight or the flood tide. The *Wabash* was withdrawn from the blockade on February 5, and the *Housatonic* was selected as the new objective For several evenings Dixon took bearings on the *Housatonic* after she had taken her station for the night and found the Federal frigate was within range. The *Housatonic* was a large obstacle to the passage of the Confederate blockade runners, due to her anchorage in the North Channel opposite Breach Inlet.

Finally, on the evening of February 17, 1864, the conditions seemed very favorable to Dixon for an attack. The full moon and cloudless sky were over balanced by the favorable factors of a slight mist, no sea, and a very light wind.

The *Hunley* left shortly after sundown and proceeded at her top speed of four knots toward the *Housatonic*. The light mist hid the movement of the submarine but it did not hide the lofty spars of the enemy from Lieutenant Dixon.

Acting Master John K. Crosby was the officer of the deck aboard the *Housatonic* when, about 8:45 P.M., he spotted a ripple of water in the distance. He called the quartermaster, who examined the ripple and stated that it was a school of fish. Meanwhile, the *Hunley* continued to close the enemy at conning tower depth, and Crosby, believing this to be a drifting mine, had the alarm sounded.

When Captain Charles W. Pickering had reached the deck, the object was very close by and headed for the stern of his ship. The phosphorescent glow caused by the motion of the submarine was clearly visible, but nothing could be seen of the craft except two protuberances. The object came closer.

Just before the submarine struck, and as the *Housatonic* was getting under way, the Federals realized that they were being attacked by a torpedo boat. Rapid musket fire was directed at the boat, but it had little effect. The explosion came almost immediately after the impact, carrying away the whole stern of the vessel. She sank immediately to the bottom while the crew found safety in the upper rigging. It is believed the exploder line becoming fouled on the *Hunley* caused the sudden explosion. The explosion made little noise since it was underwater, and it was not until daybreak that the crew was rescued from the ship. The *Hunley* was not seen afterward.

The court of inquiry found Captain Pickering of the *Housatonic* and the crew guiltless of the sinking. All lookouts had been properly stationed, and the required vigilance observed. Admiral Dahlgren wrote, when reporting the incident to Secretary of the Navy Welles, that his estimation of torpedoes had greatly increased, and he considered the presence of Confederate submarines a formidable threat.

THE *Hunley* NEVER RETURNED to its base. It was thought to have been so close by when the torpedo exploded, that it was sucked into the hole caused by the explosion, and carried to the bottom by the *Housatonic*. Many years afterwards, it was found by divers completely clear of the wrecked frigate. The force of the explosion probably caused the *Hunley* to pitch and roll to the extent that water from the ballast tanks emptied into the central section, where it was out of reach of the pumps. Any additional water taken aboard would give the boat the negative buoyancy it needed to sink to a depth where the pumps would be useless. The hull was in good condition when found.

The action of the *David* and the *Hunley* did not cause any tremendous change in the outcome of the war. The sinking of the *Housatonic* and the neutralization of the *Ironsides* had an apparent psychological effect on both the people of Charleston and the blockading fleet of Federals anchored in the harbor. It surely contributed to delaying the fall of Charleston and to some extent preventing Charleston from falling to the Federal Navy.

The *Housatonic* is recorded in historical annals as being the first and only ship sunk by a submarine until the advent of World War I. [*In her attack on* Housatonic, *Lieutenant Dixon used the boat as a surface craft, low in the water, in the manner of a* David, *and also similarly carrying a spar torpedo projecting forward from the the bow.*—ED.]

The Daughters of the Confederacy erected, in tribute and acknowledgment of the sacrifices given, a huge granite block, on Meeting Street in Charleston on which the following is written:

"In memory of the supreme devotion of those heroic men of the Confederate Army and Navy, first in marine warfare to employ torpedo boats.

Moved by the lofty faith that with them died, crew after crew volunteered for enterprises of extremest peril in defense of Charleston harbor.

MAP OF Charleston Roads indicates where Federal ships New Ironsides and Housatonic were struck by torpedoes.

TAFFRAIL TALK

Like most navymen, All Hands staff members have many serious interests outside their working hours. E. E. Nichols, JO3, finds a change of pace from his cartoons and illustrations through his study of art. This paid off recently when his "Nuunanu Canal" won first place in the water color division of the BnSandA third annual art exhibit. A drawing of his, "Space Complexity," was earlier hung at the Corcoran Art Gallery's tenth annual area exhibition.

★ ★ ★

We hope that the deep enthusiasm felt by Bob Ohl, JOC, upon his return from the Nuclear Power School, New London, Conn., shows through in its final form. He's an enthusiastic, volatile soul under the quietest of circumstances, but the entire office shook with his glowing adjectives when he attempted to describe his experiences. If he had his way, the entire issue would have been devoted to his pet project. Fortunately, perhaps, for the balance of the magazine, the attached illustration best depicts his dilemma.

There must be something about fresh, cool air that helps stimulate the verbal glands. The *Adak Sun*, station newspaper of U. S. Naval Station, Adak, for example, boasts it is "From the wind-kissed playground of the Bering Sea." *Snow News*, ship's paper of uss *Thomaston* (LSD 28) whose playground is also the Bering Sea states with engaging frankness, "It may not be much, but Snow News is better than no news."

Not precisely great literature, but refreshing.

★ ★ ★

Names, they say, make news. As has been recorded earlier in this space, they also sometimes make for confusion. For a while, instructors and petty officers of Company 136, NTC Bainbridge, had a hard time with their Kings. Two of them, in fact. First names of both: Thomas Joseph. Both enlisted the same day, both were born in March, have the same religion, their mothers are both named Mary, both earlier worked for electric companies, both have a musical background.

The service numbers are different. This was more appreciated by King 902 than King 401 when their dental records became confused because of the similiarity of names.

Before their mutual Bainbridge experience, neither had met.

★ ★ ★

We also feel constrained to point out that January appears 12 months of the year on the monthly watchbill aboard uss *Eldorado* (AGC 11). The reason? January is not only a month but is also the name of quartermaster striker Allen R. January, SN. He was born in January and enlisted in January.

The All Hands Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 23 June 1955, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau should be kept informed of changes in the numbers of copies required; requests received by the 20th of the month can be effected with the succeeding issues.

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Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Requests from Marine Corps activties should be addressed to the Commandant.

• **AT RIGHT: SHUTTER-BUGS — T. J. Rittenhouse, PHAN, USN, finds one of the older inhabitants of Yokosuka, Japan, is interested in the tools of his trade during duty at Photographic Laboratory, Commander Naval Forces, Far East.**

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MAY 1956

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THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

MAY 1956 NavPers-O NUMBER 471

VICE ADMIRAL JAMES L. HOLLOWAY, Jr., USN
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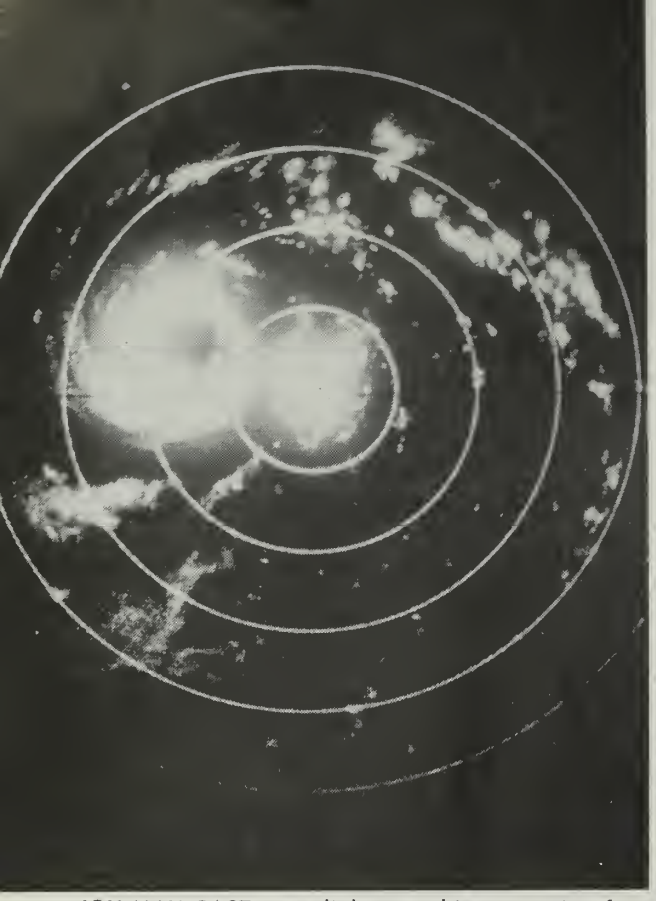
• **FRONT COVER: CRUISING THE ATLANTIC—A quartermaster of the deck gang of *USS New Jersey* (BB62) flashes a message from his ship's signal bridge to sister ship *USS Iowa* (BB 61).**

• **AT LEFT: ONE *CUTLASS* COMING UP. Deck edge elevator of *USS Forrestal* (CVA 59) brings a F7U *Cutlass* up to the carrier's flight deck during recent operations in Cuban waters.**

• **CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated. Photo on page five is by *Popular Science Monthly*.**



IGY MAY CAST more light on subjects ranging from winds (like hurricane in radar scope photo) to polar regions.

NAVY and IGY: Sailors

Did you know:

- That the northern hemisphere's oceans are not as deep during the "hemispheric spring" as during the remainder of the year?
- That your ship is likely to find itself bucking a current in a position where your charts show a favorable "ocean stream?"
- That occasionally a radio operator cannot maintain adequate contact with any of his usual stations—but finds himself picking up stations he's never heard from before, and possibly can't reach with his equipment?

And did you know that the world's scientists—including many Navymen and the "brains" behind such organizations as The Office of Naval Research, the Navy Hydrographic Office, Naval Research Laboratory and Naval Observatory —have set themselve the task of finding out about these "freak" events and about hundreds of other problems which face fast-moving world of would-be spacemen?

This worldwide scientific program, known as the *International Geophysical Year* 1957-58 (and nicknamed "IGY"), was first proposed in 1950, during a meeting of the *Joint Commission on the Ionosphere* in Brussels. With the approval of the International Council of Scientific Unions, planning for the big event was begun in 1951, with member groups of ICSU setting up planning committees in each of some 40 participating nations. Each of these committees then dug into the task of laying plans and securing cooperation for their country's participation in the over-all IGY effort.

While the IGY is man's greatest concerted scientific effort to date, there have been two previous "years." In 1882-83 scientists from several countries set up the *First International Polar Year* to collect geophysical data. During that "Year" the first Arctic auroral, meteorological and magnetic observation stations were set up.

The *Second International Polar Year*, 1932-33, followed the first by 50 years. Studies of the earth's ionosphere during this special period and immediately afterward aided in the discovery of radar, which will be used in the coming IGY to learn more about our atmosphere.

Although these polar years were scheduled 50 years apart, marked advances in geophysical knowledge, and in equipment and techniques for obtaining such knowledge, made it advisable to space scientific years at 25-year intervals—hence the 1950 proposal in Brussels.

The U. S. National Committee for the IGY was set up by the National Academy of Sciences and the National Research Council to plan, direct and execute the U. S.-IGY program. The Department of Defense was requested to cooperate in many phases of the international program.

As a result of DOD cooperation, a SecNav Instruction was issued, describing the IGY program and setting forth the Navy's policy on cooperation.

The Instruction outlines the IGY program as a worldwide undertaking for the *measurement and study of*

OCEAN STUDIES may furnish info on tides and waves or underwater volcanoes (see floating debris from eruption, *rt*).

Scientists and Satellites

the earth, its *atmosphere* and the *oceans,* with intensive studies being carried out in *meteorology, latitude and longitude determination, geomagnetism, gravity, ionospheric physics, aurora and airglow, solar activity, cosmic rays, glaciology, oceanography, seismology* and *rocket exploration of the upper atmosphere.*

Under the military cooperation setup, the Navy's operating forces will provide operational and logistic support for many phases of the program. Navy scientists are primarily concerned with:

- Oceanography
- Latitude and longitude (a large part of which will be carried out by the Navy)
- The rocket program (of which the Navy is doing approximately one-third)
- Geomagnetism and the Antarctic phases of all the IGY programs.

Although IGY does not begin officially until 1 Jul 1957 (and runs through 31 Dec 1958), plans for the Antarctic phase were well underway as far back as December 1954 when USS *Atka* (AGB 3) conducted preliminary studies of the southern continent's frozen coastal areas. Elsewhere trial runs and equipment tests are being carried out to insure that everything goes off without a hitch.

Oceanography is one phase of IGY in which your Navy is playing a very large part, and a look at the U. S. plans for this section of the scientific year will give you an idea of how the entire IGY program has been set up. The U. S. National Committee for IGY appointed a technical panel of experts, with Mr. Gordon G. Lill of the Office of Naval Research as chairman. The panel includes several other Navy scientists, as well as representatives from such well-known research centers as the Scripps Institute of Oceanography at LaJolla, Calif., and the Woods Hole, Mass., Oceanographic Institution. This technical panel (like similar panels in each of the participating countries) has decided upon the most desirable objectives for concentrated oceanographic research and made plans for carrying them out.

The two major parts of the oceanographic program are an "Island Observatories Project" and "Operation Deep Current." As one of the panel's scientists has pointed out, we know less about the 70 per cent of the earth's surface that is covered by oceans than we know about the other side of the moon. That will be remedied by IGY's oceanographic program, which is also expected to help provide answers to the following: 1) long-range weather forecasting; 2) the fertility of ocean life as it is affected by exchange of water between deep ocean currents; 3) whether oceans can be used safely as a dumping place for the waste products of radioactive substances; 4) the shape of the deep sea floor; and 5) the changing ocean levels.

You'd never notice it aboard ship, but sea level varies with the seasons (for instance, in the northern hemisphere's spring the northern ocean is about half a foot lower than during the remainder of the year, while the same is true of the southern hemisphere's oceans during the southern

ICEBERGS *(left)* and growing mountains *(right)*—IGY will watch them, as well as the weather and ocean currents.

spring). All these changes are so small that they seem unimportant, yet they offer a key to the circulation of water throughout the earth's oceans—and this affects climate and changes of weather wherever you are.

The island observatory project is expected to obtain an understanding of these sea level changes and their relationship to other phenomena in the ocean and the atmosphere. Existing data on tide levels have come mostly from tide gauge stations in the northern hemisphere. During IGY, however, approximately 30 additional stations will be operating, most of them on islands around the world. Nine of these will be operated by other countries. In addition to collecting sea level data, these stations will also collect weekly temperature readings to depths of 1000 feet offshore, while a few of the stations will measure salinity of the water down to a depth of 1000 meters.

IGY officials expect this data — after collection, correlation and study —to lead to accurate prediction of weather several months in advance.

Operation Deep Current is the second project in IGY's oceanography program. Employing approximately 40 U. S. and foreign ships in both the Atlantic and Pacific oceans, this "operation" will study: 1) the deep circulation of water moving northward from Antarctica into and along the bottom of the two major oceans; 2) the equatorial current systems in the two oceans; 3) the areas in which the currents converge in the North Central Pacific and the North Central Atlantic. In addition, many of the ships will produce submarine geophysical profiles in the eastern and western Atlantic basins and in the central and eastern south Pacific.

One of the major fields of Navy participation in the International Geophysical Year is in the rocket program. This includes Project Vanguard, undoubtedly the most dramatic of all the IGY programs, but actually just one part of the scientific year's rocket phase, although it's a plain case of "tail that wags the dog." "Vanguard," of course, is the name picked to identify the Defense Department's contribution to the earth satellite program announced by the President last July; However, the project is also known as "LPR" (Long Playing Rocket) by the scientists of the National Academy of Sciences who are responsible for over-all direction of U. S. participation in IGY.

But whatever you call it, the earth satellite project would do credit to our best science fiction writers—or to an advertising agency. Admen, in fact, have already had their say:

"The big countdown has begun. In something less than 6000 working hours, a voice will toll off the final seconds to a zero count that will commence the greatest adventure in our time. This zero count will launch ESV Vanguard—the Earth Satellite

WEATHER STUDIES from all altitudes will be made at strategically located spots to improve long-range forecasting. Skyhook balloons will play a role.

Vehicle that is to take its place in history as man's first exploratory step in the conquest of the final frontier—space itself.

"The satellite will be large enough to carry essential research instrumentation and to be tracked from the ground by optical and radio devices. It will in fact be both seen and heard around the world. The satellite's orbit will be slightly elliptical, with its nearest approach to the earth (perigee) about 200 miles distant. It will circle the earth approximately once every 90 minutes for several days. The slight but cumulative drag from atmospheric molecules at the 200-mile altitude will bring the satellite gradually closer to earth. And, finally, the friction of the denser atmosphere will cause it to disintegrate harmlessly, much in the fashion of a 'shooting star.'"

"Thus one day soon, in the hour before sunrise, as men the world over train their binoculars upon a brilliant point of light in the sky, they may well reflect upon the universality of man's faith in the infinite future of man."

While that description may seem a little on the fancy side, it does give you a pretty fair idea of the satellite project's importance.

Actually, present plans call for the launching of several of these small, unmanned satellites, each included in the final stage of a three-stage rocket-launching vehicle. The Air Force Missile Test Center, Patrick Air Force Base, Cocoa, Fla., has been picked as the launching site.

In addition to the instrument-laden satellites, many other instrument-bearing rockets will be launched—from White Sands, N. M.; Fort Churchill, Alaska; Chincoteague, Va.; from ships off San Diego and en route to the Antarctic, and from a number of foreign launching sites. These other rockets will include Aerobees (which have hit altitudes of 123 miles), Nike-Deacon combinations (the power plant of the Army's Nike antiaircraft missile attached to the Deacon rocket for added range), Rockoons (Skyhook balloons with Deacons attached, the combination being capable of 60-mile altitudes) and Rockairs (small rockets launched from jet aircraft at high altitudes).

Geomagnetism—the study of the earth's magnetic fields—is another program in which the Navy is vitally interested, but like many of the other IGY programs, it's too complicated to be explained briefly and clearly. Roughly, however, earth's magnetic field is known to undergo variations, some slow enough to be measured in years, and some rapid enough to be measured in days, hours, minutes and seconds. It is also known that the permanent field and the slower variations are due to changes of some sort in the earth's interior or its crust; the more rapid fluctuations arise from influences in the upper atmosphere and above.

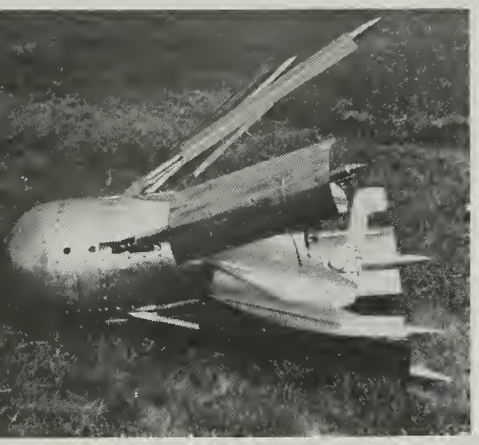
IGY WILL GO 'out of this world' with attempt to launch satellite. Model was made by *Popular Science Monthly* under Naval Research Lab's guidance.

The U. S. program is primarily concerned with these high-level changes, apparently caused by solar bursts of some sort of radiation, which play hob with radio and other earthly communications systems, cause auroral displays ("Northern Lights") and probably have an effect on earth's weather. It is thought that these magnetic disturbances are caused by electrical current systems in the upper atmosphere measured in hundreds of thousands of amperes.

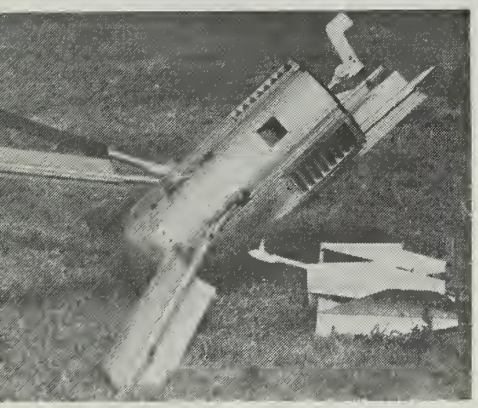
To gather detailed data on these currents and on the more permanent magnetic fields, the technical panel on geomagnetism has laid plans for the following: 1) a North American network of stations (including an east-west chain and a north-south chain); 2) a system of magnetic observatories near the equator in the Pacific area; 3) standard magnetic observatories to be established in the Antarctic; and 4) correlation of data collected with measurements planned for IGY in the fields of ionosphere, meteorology, and possibly aurora, in an attempt to distinguish between geomagnetic signals and signals from thunderstorms or from extra-terrestrial sources.

The study of longitudes and latitudes is the fourth part of IGY in which the Navy is playing a major part. Scientists from the U. S. Naval Observatory are active in the two big programs in this field: 1) astronomical longitudes and latitudes, and 2) the moon position program.

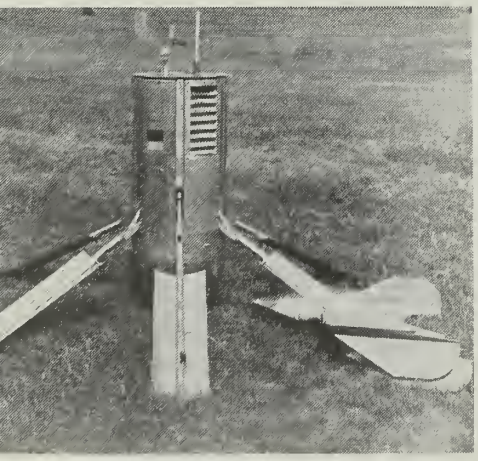
On impact, chute is already detached.



Legs open and *below* it rights self.



Head's up and it's ready to broadcast.



GRASSHOPPER, a robot weather station, sets self up and radios meteorological info for two months. It will be dropped on polar icecap to relay weather to approaching explorers.

Personnel working in the first of these programs will use impersonal astrolabes for star observations and quartz crystal clocks for timekeeping. Use of these accurate, modern instruments will enable scientists to determine coordinates for each station with probable errors of only a few feet. A comparison of these values with others in the future will enable scientists to determine how much, if any, the continents are shifting in relation to each other.

The moon position program—which is something new—has for its aims the solution of several special problems in astronomy, geophysics, physics and geodesy—or such things as uniform time, the irregular rotation of the earth and the size and shape of the earth. Although the possibility of using the moon in the solution of these and similar problems has long been recognized, no method of obtaining sufficiently accurate moon positions was available until a Naval Observatory scientist developed a "dual-rate moon position camera."

This "Markowitz camera" can be attached to long-focus telescopes, and will take a simultaneous exposure of the moon and surrounding stars on any night when the moon is clearly visible. Since it will hold the moon in a fixed position relative to the stars during exposure, the images of both moon and stars are sharp. Measurement of the resulting plate gives the position of the moon with respect to the stars with a precision which is considerably higher than has been obtained by other methods.

These cameras will be set up at approximately 20 observatories throughout the world, including Washington, San Diego, Hawaii, Argentina, Brazil, Canada, Australia, Japan, India, South Africa, Spain, Greece, France, England, Egypt, Sweden and Finland. In addition to furnishing the cameras, the United States committee will also undertake to measure approximately one-fourth of the finished photographic plates, and will supply three measuring engines of special design to observatories in other countries willing to undertake the measures. The U. S. Naval Observatory has been designated as the central agency for the moon position program.

By now you're probably wondering just how the Navy expects to profit from this poking into the darker corners of the earth and its surroundings. Well, the scientists are quick to point out that the studies being conducted under IGY probably won't mean much to the ordinary Navyman unless it gives him a chance to visit Antarctica or some other place where he's never been). And the results aren't likely to mean much to anybody until well after the year is officially over and the participating scientists have studied their masses of data and drawn some conclusions. Even then, many of the benefits are not likely to be immediately evident.

For instance, the expected improvement in long-range weather forecasting may be of only passing interest to you, but it is of the greatest importance to the naval air force, and will have an effect on the future deployment of Navy ships. Sunspot activity and magnetic storms may be annoying if they interfere with your radio listening or TV viewing—but rapid, interference-free communication is one of the most vital links in our nation's military defense.

Ocean currents, the salinity and temperature of sea water, the shape of the ocean's bottom are of little interest to the ordinary seaman, but such knowledge is valuable in surface navigation—and vitally important in the planning and operation of a subsurface nuclear fleet capable of circling the globe without surfacing. The same knowledge is also vital to safe disposal of radioactive waste in the ocean's depths.

And a system of finding latitude and longitude which permits an error of some 1500 feet between, say, North America and Europe, sounds pretty accurate considering the distance involved—but that error is much too large in these days of supersonic travel. The new system expected to be derived from IGY studies, however, will cut that error to something like 90 feet. Eventually it will also have a profound effect on the Navy's present chart and mapping system.

These few results, like this story, barely scratch the surface of the world's greatest scientific undertaking. But it's safe to say that each division of IGY's research program—some overlapping phases your Navy is participating in and some not—will eventually have an effect on your daily life. And you'll probably never realize that you have benefitted from International Geophysical Year 1957-58. —Barney Baugh, JO1, USN.

USS (YOG 32) takes time out at Reykjavik from gas run for paint and repairs.

YOG Dodges Icebergs to Keep 'Em Flying

"ORPHANS OF THE NAVY" is the phrase used by the U. S. "Fleet" in Iceland to describe its situation. The "Fleet" consists of precisely one (1) 1200-ton yard oiler USS *YOG 32* and no more. It has a crew of 22 men, with Chief Boatswain Hal George Pitts, USN, as skipper. *YOG 32* claims to be the only U. S. naval vessel permanently stationed in Icelandic water, and, so far, has found no one eager to dispute its claim.

The YOG has a milk run between Hvalfjordhur, Hafnarfjordhur and the airbase port in the town of Keflavik. The "milk" in this case consists of thousands of gallons of aviation fuels monthly.

The fuel is originally brought from the United States by large ocean-going tankers that off-shore load it into storage tanks atop hillocks near Hvalfjordhur and Hafnarfjordhur.

The YOG works on a pick-up and delivery schedule issued from the office of the Navy Component Commander of the Iceland Defense Force, and has made as many as six runs in one week while meeting the needs of the thirsty airplanes that daily touch down on Keflavik's long runways. One complete round-trip usually takes one day.

After unloading the fuel from the storage facilities, the diminutive tanker battles whatever Arctic weather the North Atlantic has in store to bring the gasoline to its Keflavik destination. It is then piped directly to reserve tanks at the airport from which it is drawn by pipeline and tank-trailer.

Powered by two five-cylinder diesel engines of 500 horsepower each, *YOG 32* can push along at a top speed of 10 knots. The oiler is the sister ship of *YOG 34*, at present with the Antarctic expedition and previously on duty in Iceland before its trip to the bottom of the world.

The rugged little *YOG 32* has twice made the long, rough trip between Iceland and the United States. The second time, she headed back for necessary drydock maintenance. On both occasions the ship was towed by an ocean-going tug, not because of lack of power or stamina, but because it lacked the necessary long-range radio equipment necessary to navigate safely on the high seas.

Food, mail and supplies are picked up when the tanker docks at Keflavik or when the ship is in drydock at Reykjavik for maintenance. Work schedules limit liberty between hauls, and routine duties and ship needs keep the men on board the YOG fully occupied.

In a sense, life aboard the tanker during fueling operations is one of almost scientific caution. No fire hazards are allowed to exist and repeated checks are made of areas where there is the remotest possibility of such hazard.

"The morale of all hands is excellent, in spite of the adverse Arctic conditions," says Captain Pitts. "The food is good, duty is good and everyone uses his inventiveness to provide recreation."

In spite of the solitary life aboard the YOG, that recreation includes a remarkable variety of activities. Fishing has become one of the most popular hobbies. Other leading off-duty arts include painting, model aircraft and ship building and photography. Movies, brought in with the mail from Keflavik Airport, are shown nightly in the ship's galley. —Cary B. Bell, A/1C, USAF.

ALL HANDS of EM crew muster topside. *Below:* Model building helps while away spare time in Iceland.

FIRE locker gear is checked by sailors knowing danger of explosive aircraft gas. *Below:* Chicken dinner is readied.

MIKE BOATS like this snow-incrusted craft have been making a big name for themselves in Antarctica's icy ocean.

Little Heroes of the Antarctic

FOR MANY YEARS TO COME, there will be plenty of sea stories by members of Operation Deepfreeze. From here on in, they will be a closed confraternity, and only they will be entitled to start out, "Now, when I was with Deepfreeze back in the winter of 1955-56 . . ."

They will talk about:

• RADM George Dufek, USN, (Ret.), the task force commander, who had a knack for being at the right place at the right time and making snap decisions which always seemed right.

• *USS Glacier* (AGB 4), which set a record taking ships through the ice pack, then proved masterful at icebreaking, then fueled ships in the Ross Sea, then fueled airplanes that taxied alongside on the ice shelf at McMurdo Sound, then returned to New Zealand to tow a small oil barge through the pack ice to McMurdo Sound, then went around the continent to check the Knox Coast and Weddell Sea areas, then left the ice last of all ships.

• The pilots and crewmen of Air Development Squadron Six, who flew a dozen successful long-range missions into the great unexplored kidney of Antarctica.

• The men of Mobile Construction Battalion Special, who built bases at Little America Five and McMurdo Sound which could stand Antarctic wintry blasts of 100-knot winds and severe temperatures, who stayed at these bases through the winter night to get a head start on more bases next year.

• The time the tanker *USS Nespelen* (AOG 55) was caught in an ice jam, had her starboard side ruptured to the extent she spilled 150,000 gallons of aviation gasoline into McMurdo Sound, yet survived to provide fuel for airplanes, tractors and men at McMurdo Sound and Little America Five.

• The experience of Lt. Colonel Hal R. Kolp, who ran into a whiteout flying an R5D and should have returned to the bay ice at McMurdo Sound but instead flew parallel with the milky, deadly fog until he reached the south pole, and then orbited around long enough to learn the compaction of the snow before he returned to base.

•CDR William "Trigger" Hawkes, who said "I'd like a 5000-foot runway to land a *Neptune* at Little America but will settle for less," (and he did) in order to make a vital flight into Marie Byrd Land in advance of the trail party about to depart from Little America.

• The trip of LCDR Jack Bursey, Chief Surveyor George Moss and the drivers, mechanics and radiomen of the trail party who traveled 380 miles overland to lay down a safe trail to Byrd Station, and who ran into crevasses deep enough and wide enough to swallow the Empire State Building lying horizontal.

• The otter crew from Little America who flew almost daily support flights to the trail party, got

socked in for two and three days at a time by weather, yet continued to fly, then finally crashed and walked out unhurt after seven days' search.

• Chief Commissary Steward Alvin E. Israel of *Arneb*, who fed four meals a day, fixed sandwiches in between, sent hot soup to the men working on the ice, gave up mess cooks to working parties, yet never complained—much—that he was overworked.

• Seabee driver Dick Williams, who gave his life when a giant D-8 tractor he was driving over virgin bay ice crashed through into 100 fathoms of icy water before he could jump out of an open escape hatch; and Seabee Max Kiel, who went to his death in a crevasse piloting a 35-ton tractor on the trail 110 miles east of Little America.

All, in their way, were among the heroes of the expedition. There will be considerable discussion concerning the heroes of these and other members of Task Force 43. However, sailors at Kainan Bay agree that in any talk of unsung heroes of Operation Deepfreeze there are always the Mike Boats and their crews.

Mike Boats are 50-foot amphibious craft officially dubbed LCM (landing craft, medium).

The Mike Boat is powered by 225-horsepower engines and has a crew of three—coxswain, engineer and bowhook. Coxswains during Deepfreeze were Seamen K. G. Nolter, E. L. Cason, Michael Mantineo and L. S. Masco. Engineers were W. N. Abbott, W. D. Jones, Jr., J. E. Bradley and W. W. Rowe, all firemen. Bowhooks were A. L. Rodgers, G. R. Giruad and R. J. L'Conner, seamen.

LCM CREW from *USS Arneb* lands on ice shelf with line handlers to prepare for the tricky job of mooring their cargo ship safely in ice-filled bay.

From the time the Task Force penetrated the pack ice south of Scott Island just before Christmas, newcomers to amphibious-type ships—and to Antarctic operations for that matter—had watched these Mike Boats do everything from breaking ice to running passenger schedules and from serving as tug boats to acting as outright cargo carriers.

"Just take the Little America operation, for example," the Deepfreeze veterans will say. "When *Glacier* finished breaking a channel and the cargo ships *Arneb* and *Greenville Victory* (T-AK) 237 started in to tie up to the bay ice, the Mike Boats were already there. They had taken "deadman" parties ashore earlier to bury queer, coffin-like boxes in the ice to serve as ice anchors for the ships' mooring lines.

"When the 14,000-ton ships crept into the channel the Mike Boats nudged alongside and shoved reluctant bows or sterns into the icy dock.

"Then," they will continue, "when the bay ice began to drift back into the channel and threatened to hole the cargo ships, Mike Boats were there to wrestle huge ice slabs, weighing a thousand times more than the boats themselves, back into Kainan Bay away from the ships."

LCM SHOVES *USNS Greenville Victory* (T-AK 237) into position for fueling *USS Arneb* (AKA 56) at *Kainan Bay*.

As the Little America unloading operation continued, the Mike Boat crews stayed alert for 24-hour duty. If somebody had to be transported to a ship offshore or into the beach when the mother ship was at sea, or if scientists had to go out into the bay to take water samples, crews responded to the call, "Mike Boats, Away!"

Here's one incident which will show why they will talk about Mike Boats.

Once when *Arneb* had gone through a week of anxiety lest the ice break and plunge equipment and men into the freezing water, when crews had been working long and hard shifts for days to unload all cargo, this terse message was rasped over the public address system:

"Cease unloading. Make emergency plans for getting underway!"

Ice which for days had threatened to break finally broke. First a jagged line an inch wide would dance across the smooth top surface of the ice. Within minutes it would open to two feet. Silently the gap grew wider and wider. By now *Arneb* had a full head of steam and was ready to cast off. Then the captain noticed the entire break was inside the extreme mooring lines, forward and aft. He passed the words: "Mike Boats, Away!"

Soon the ship's two boats were dashing around *Arneb's* bow, moving inboard between ship and jagged ice shelf. They nosed their bows up on the drifting ice and by the time line handlers aft could slack the lines enough to permit the ship's stern to swing out, they had the huge sections of ice on their way to sea. Now it was simply a matter of bringing the ship back into the niche where the slabs of ice had been shoved away.

A cloud of thick fog, caused by cold air moving over warmer snow and water, shrouded the operation in an aura of mystery. Crewmen watched fascinated as the Mike boats saved the day while hoarfrost from the fog settled on every line topside and coated it with ice.

That was at midnight. By 0800 another break in the ice, this time much wider, forced the ship to abandon unloading operations and get underway. Again the Mike Boats were called away. First they landed men to slip the ship's mooring lines. Then while one served as tug the other pushed drifting ice cakes from the ship's path.

When enough floating ice had been washed away for the ship to return to the job of unloading, the Mike Boats again helped her alongside. This time there hadn't been time enough for the deadmen to set, so it was up to the Mike Boats to put their bows to the mother ship's hull and keep her snug to the ice by turning up their engines. A strong wind was blowing from the direction of the ice and the calendar was running out—unloading had to begin without loss of even one hour.

The boats had been holding the ship thus for almost four hours when W. L. Davis, BMC, walked into the CPO quarters for a cup of coffee. ". . . Old Man better be careful," he grumbled, "or he'll burn the engines out of those boats."

W. V. Eskew, MMC, who was responsible for the boats' upkeep, scoffed at the idea.

"You should have been here last summer in the Arctic," he said. "We ran them at full speed for 12-14 hours on a stretch, shoving ice that threatened to jam the ship at Baffin Bay. And when we got back and turned the boats into the repair shop at Little Creek for checkup they didn't have to put a wrench on one of them!"

Eskew went on to describe how on that trip *Arneb* had eight Mike Boats. Ship's couldn't tie up to unload, so everything was ferried ashore by Mike Boats. Some carried tractors weighing more than 30 tons while others carried as many as 150 50-gallon drums of fuel in one load. In all, the eight Mike Boats unloaded four cargo ships.

"What makes a Mike Boat different from an LCVP or a PT boat or an LST or any other type of amphibious craft?" the uninitiated will ask.

It's a good question. The four Mike Boats on Deepfreeze—two on *Arneb* and two on *Wyandot*—look a lot like several other types of amphibious boats with these exceptions:

Deepfreeze Mike Boats are "winterized." That means they have heated cockpits, enclosed for their small crews in the severe weather of Kainan Bay or McMurdo Sound.

"They look scroungy when you compare them to a PT boat with its graceful lines," say the experts. "The enclosed cockpit aft looks like something an 11-year-old boy would build to enter the national soapbox derby . . . square lines and blunt bow . . . and they always seem to be operating behind a smoke screen as they chug and push against a ship's side or against an iceberg.

ICE CUBE PATROL — Winterized Mike Boat chases blocks away from transports unloading Deepfreeze supplies.

ADVANCED AIR OPERATION base of TF-43 is located near Crater Hill on Ross Island. *Below:* Navymen walk through open 40-foot crevasse to Little America.

"Matter of fact," they will add, "when a ship pulls into port the Mike Boats are almost hidden from public view between deck houses aft, while the cleaner-lined Peter Boats are in prominent view forward, always looking freshly painted."

Admiral George Dufek, task force commander for Operation Deepfreeze, sings praises of the faithful Mike Boats. "In all our tense moments," he says, "the Mike Boats were ready." He feels that if a Mike Boat had been available to the tanker *Nespelen* at McMurdo Sound when she got caught in an ice jam she would never have suffered the serious rupture to her side.

Captain Smythe of *Arneb* says, "Mike Boats were indispensable at Little America."

By the end of January *Arneb* had won the race against time, weather and breaking bay ice at Little America and was ready to go home. She was set to sail for McMurdo Sound, then to New Zealand, when *Nespelen,* delivering fuel to the base camp at Little America, sent this message which required her to stay two extra days at Little America:

"Drifting ice is threatening. Please send your Mike Boats to fend it off."

J. E. Oglesby, JOC, USN, TF 43.

THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **SIGNALMAN RETURNS**—The rating of Signalman has been approved by the Secretary of the Navy for re-establishment within the enlisted rating structure. Pertinent information concerning the rating, such as eligibility for conversion to the Signalman rating, the effective date of establishment of the rating, and qualifications necessary for change in rating to Signalman will be published in a forthcoming BuPers Instruction. ALL HANDS will publish the complete information as it becomes available.

The rating of Signalman, among the oldest in the Navy, was discontinued in 1948 and was integrated with Quartermaster in the new post-war rating structure.

• **MSTS ACCOMMODATIONS** — Effective 1 July, the following Department of Defense policy will govern the assignment of space aboard ships of the Military Sea Transportation Service:

Navymen in pay grades E-7, E-6, E-5, and E-4s who have more than four years' service are entitled to cabin class accommodations if they are traveling with their dependents. When traveling without dependents men in the above categories are entitled to troop class accommodations, but cabin-class space may be furnished if such assignment can be made without displacing other persons entitled to cabin class.

Enlisted men below E-4, and E-4s with less than four years' service are entitled to troop class accommodations. However, when traveling with dependents these men too may be furnished cabin-class space when such space is available.

Dependents of all members are entitled to cabin class in dependent-carrying troop ships. Naval Academy midshipmen are entitled to cabin-class accommodations in dependent-carrying and C-4 type troop ships.

• **NAVAL PREP SCHOOL**—All commands have been notified that nominations are being accepted for candidates to attend the U. S. Naval Preparatory School at Bainbridge, Md. Nominees who successfully complete the preliminary examination and are ordered to the school will, upon successful completion of the Prep School curriculum, take a competitive examination for appointment to the Naval Academy as a midshipman.

The date set for this year's preliminary examination for appointment to the Prep School is 2 July. To be eligible for nomination to take the exam, you must:

1. Be of officer caliber.
2. Be a citizen of the U. S.
3. Have enlisted in the Navy or Marine Corps on or before 1 July of the year preceding that in which the Naval Academy entrance exam is given.
4. Be not less than 17 nor more than 22 years of age on 1 July of the year in which the Naval Academy entrance exam is held.
5. Meet educational qualifications as determined by the Chief of Naval Personnel.
6. Be able to pass the required physical examination.
7. Be unmarried, and never have been married.
8. No person who has had one complete academic year at the Naval Prep School may be reassigned thereto except in case of protracted illness or other extenuating circumstances.

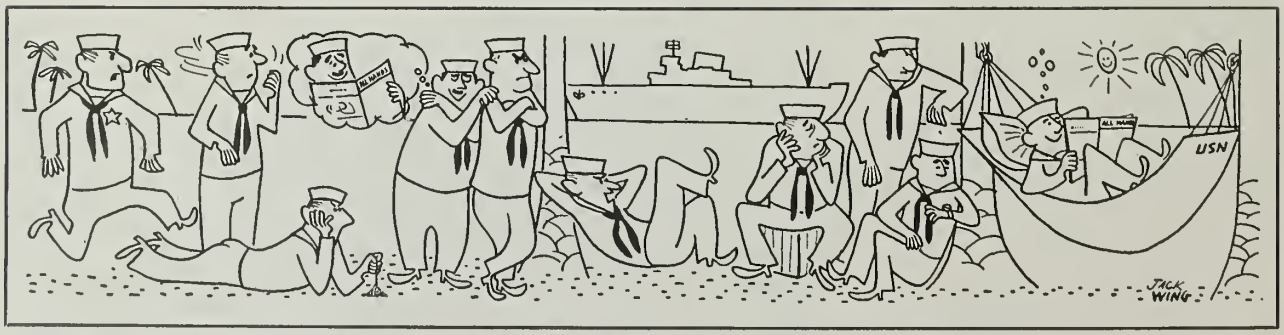
For details on nomination procedures and qualifications of candidates check BuPers Notice 1531 of 14 Mar 1956 and its references.

• **OFF-DUTY JOBS**—Navymen and Marines who are holding down civilian jobs during off-duty hours would do well to read carefully SecNav Inst. 1050.2. This instruction redefines the Navy Department's policy toward such part-time employment; it also suspends Article C-11101 of *BuPers Manual* and cancels SecNav Inst. 1050.1, both of which previously governed civilian employment of naval personnel.

The new instruction states that neither officer nor enlisted personnel should "be restrained from engaging in legitimate and ethical enterprise or employment during their off-duty hours," but points out that active naval personnel are in a 24-hour daily duty status, so their military duties must at all times take precedence of their time, talents and attention.

There are also the following limitations listed in SecNav Instruction 1050.2:

1. You shall not engage in a job



PASS THIS COPY ON—Take your time reading—But don't let spring fever keep it from nine other men.

Navymen in Las Vegas Know a Good Bet

Here's a record that's practically a "four-minute mile" among reenlistment rates.

During 1955 Lake Mead Base at Las Vegas, Nev., turned in a shipping-over figure of 96.5 per cent, and for the first six months of '55 the base racked up a red-hot 100 per cent.

Between 1 Jan and 30 Jun 1955 every one of the 25 who were eligible to reenlist signed up for another hitch. In the last half of the year 28 out of 30 shipped over, making a 93 per cent rate for that period and bringing the 12-month total to 53 out of 55. A breakdown of the 53 shipping over, by pay grade, includes 10 E-7s, 20 E-6s, 15 E-5s, seven E-4s and one E-3.

Evidently Navymen in Las Vegas know a good bet when they see one.

in which the hours or the nature of the work interfere with proper and efficient performance of your military duties.

2. You shall not engage in any job or enterprise which reflects discredit on the service, is unethical (in view of possible exercise of influence attending one's military position or otherwise), or if it provides a total income direct from the government (including military pay) which exceeds $2000 a year.

(It should be noted, however, that an opinion rendered by the Judge Advocate General, CMO 2-1940, holds that this double-salary limitation does not apply when federal employees are paid from non-appropriated funds. Examples where the income limitation does not apply are: Navy Exchanges, officers' messes and enlisted men's clubs.)

3. You may not work for an organization involved in a strike or lockout, and if such action occurs at your place of employment you must immediately quit work until the strike or lockout has ended.

4. You may not conduct or solicit business on board a ship or station without authorization from the commanding officer.

5. Members of Navy and Marine Corps bands, as individuals, may not sell their services as musicians in civilian employment outside a military reservation.

• **SEPARATION ALLOWANCE** — A special family separation allowance, payable to Navymen serving at stations outside the U.S. without their families at a location where no government quarters are available, has been authorized.

The amount payable varies from $1.70 for all enlisted men to $4.45 for highest ranking officers and is paid over and above any station allowance already authorized.

The allowance begins the day after you arrive at your permanent duty station outside the U.S. and ends the day preceding departure under permanent change of station orders.

The rates for the separation allowance are: 0-8, 0-7, $4.45; 0-6, $4; 0-5, $3.40; 0-4, W-4, $3.15; 0-3, W-3, $2.85; 0-2, W-2, $2.55; 0-1, W-1, $2.30; and E-1 through E-7, $1.70.

Navymen serving in overseas billets will NOT be eligible for the special allowance when: they are drawing station per diem allowances as a member with dependents; government quarters are available; dependents are absent from the vicinity for 90 days or less; dependents are at or in the vicinity of the man's duty station.

• **OFFICER TRAINING**—Ensigns and lieutenants (junior grade), who were commissioned as line officers from NROTC units and who have not yet been selected for retention in a career status, are now eligible for several courses of instruction and changes in designator from line to staff.

Under the provisions of BuPers Inst. 1520.5C, qualified officers may apply for flight training, submarine training, postgraduate instruction and other courses of instruction provided they agree in their applications to extend their active duty or have sufficient obligated service remaining upon completion of the course to warrant assignment.

Changes from the line to staff corps duty can also be made with the understanding that officers applying for such transfer who are selected for the change will be issued a new commission and a new appointment in the appropriate corps. They will then acquire permanent status as commissioned officers of the Regular Navy and will no longer be subject to selection for retention after three years commissioned service.

QUIZ AWEIGH

Take time out for a cup of coffee and see if you can tackle this month's quiz. If it takes some of the wind out of your sails, turn to page 41 and you'll find a good breeze . . . and the answers.

1. You should easily recognize the man in this photo. He is (a) Admiral A. W. Radford, USN, (b) Admiral A. A. Burke, USN, (c) Admiral Jerauld Wright, USN.

2. If you know the man above, you'll also know the high office he commands. The billet he holds was established in 1915 by (a) the Secretary of the Navy (b) the Chairman, Joint Chiefs of Staff (c) the U. S. Congress.

3. The above is the ribbon for the (a) Navy and Marine Corps Medal (b) Navy Unit Citation (c) Marine Corps Good Conduct Medal.

4. It is awarded to personnel in the naval service for (a) heroism in combat (b) four years good conduct (c) heroism outside of combat.

5. Check this staff corps insignia closely. This close inspection will tell you that it designates the (a) Nurse Corps (b) Medical Corps (c) Dental Corps.

6. This Corps was established (a) 1898 (b) 1908 (c) 1917.

Mobile Docks

ASK 10 MEN what a floating dry dock is and, chances are, you'll get 10 different answers. The most common might be: "It's one of those sectional things they hooked together and used out in the Pacific during the last war."

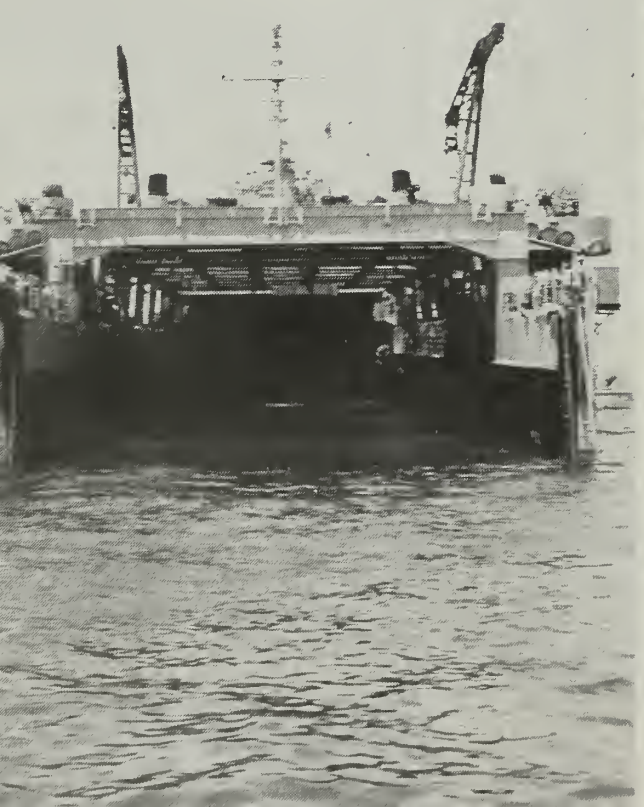
The more experienced might suggest: "It's a "U" shaped job they use to dock and overhaul ships in. We were in one, once."

Both answers are more or less correct, but a floating dry dock is a lot more.

It has some of the characteristics of a ship but is actually a more or less complex lifting device. It may not move often but it is a floating repair craft that may sometimes be a mobile unit with the Fleet Service Forces.

Some of the small dry docks (AFDL, 1000-ton lifting capacity) have a complement of one officer and 29 men (although in actual practice as few as 12 men), but in spite of their small numbers, they do a big job. Their craft is only

BETWEEN BULKHEADS of an ARD a crewman works. *Below:* LSD opens up, *(rt)* AFDB of WW II pulls double duty.



Repair Ships On-the-Job

about 200 feet long with a beam of 64 feet, but don't let this small size fool you.

The dock basin is a deck that covers most of the topside area. Sand from sandblasting falls on the dock basin and the sand is ground in. It gets wet, stays wet and rusts the dock basin under a ship in dock and you can't clean up the mess until the ship is undocked.

Also, instead of the usual two exposed sides of a ship, a floating dry dock has four exposed sides—two wingwalls with two sides each. This peculiarity of floating dry docks steps up your hull maintenance and that means work for all hands.

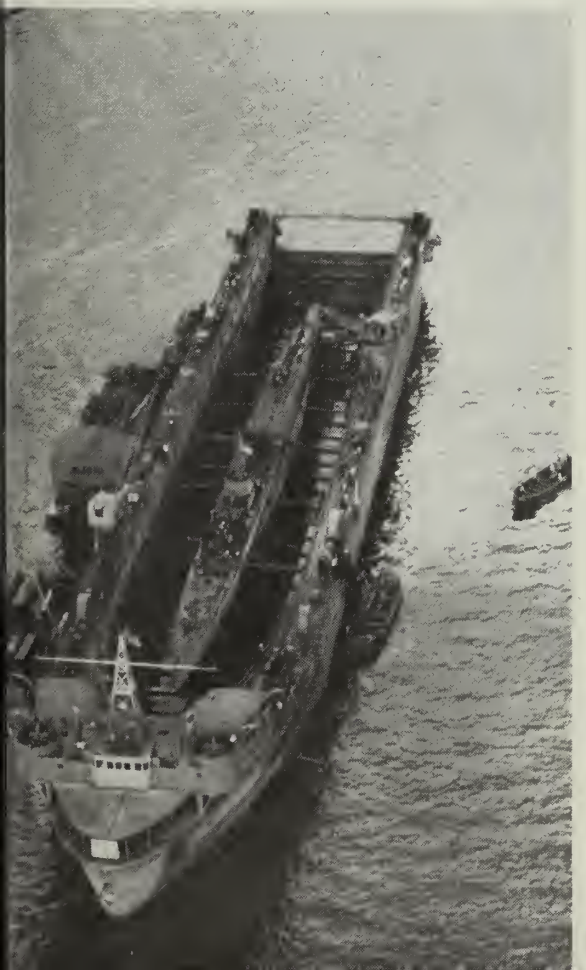
The inside of the dry dock isn't an empty hollow either, as some people think. The inside of a typical AFDL is filled with large dewatering pumps, valves, valve controllers, diesel engines, generators, and a machine shop. The interior of this type is so crowded that there isn't room to berth much of the crew. A barge is usually assigned to these small dry docks for use as a living barge and also doubles as a carpenter shop.

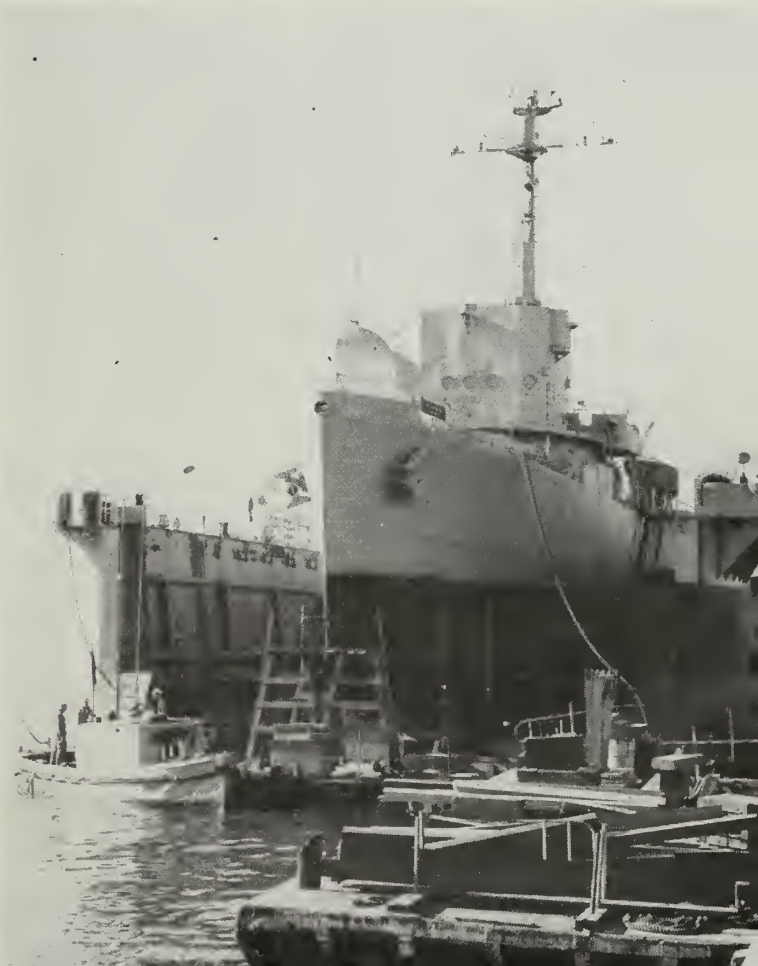
A tour on board a large auxiliary floating dry dock (AFDB, 90,000-tons lifting capacity) is a real experience. Here you have not one but 10 separate dry docks welded together to form a structure bigger than any ship afloat.

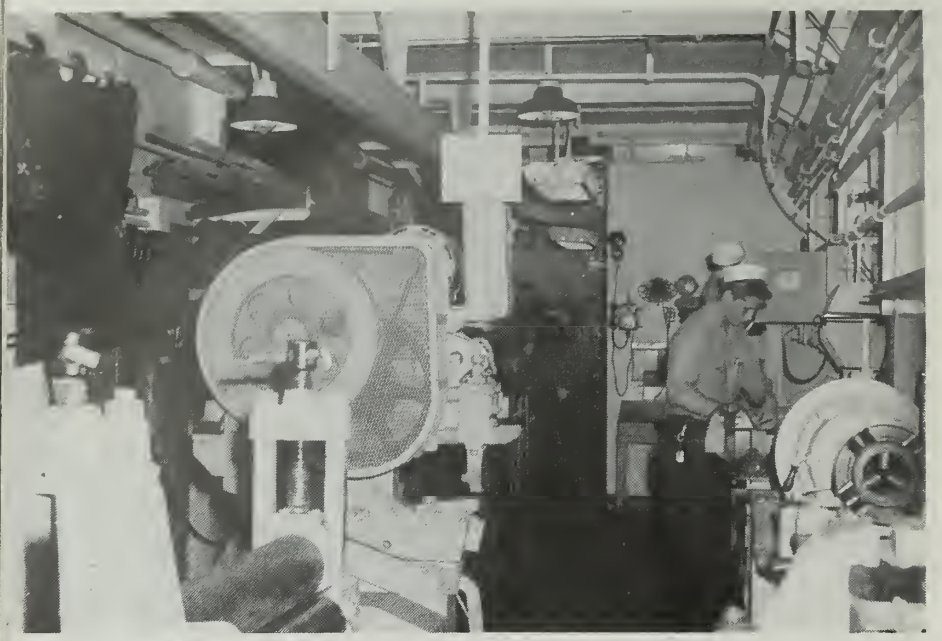
As you wander through the maze of passageways and compartments you realize that you're actually going through 10 individual dry docks. Each section is almost the same as the other nine sections. It has not one power plant, but 10 power plants with two large diesel engines each—20 diesel engines to run, repair, and nurse when they break down.

A large floating dry dock is manned by a crew equal to that of three destroyers, the combined diameters of the ballast flooding and discharge valves are greater than the length of the ice breaker uss

SUB GETS REPAIRS in medium floating dock. *Rt:* Small dock tends to AM. *Above:* Welding plate in machine and hull shop.







A PIPE FITTER of Medium Auxiliary Floating Dry Dock No. 8 works in shipfitters shop. Many activities are carried out in AFDM's limited interior.

Atka (AGB 3); and if the ballast tanks were filled with fresh water they would hold a seven-day supply for a city of 40,000 people. There are 15 sizes of tanks between the largest and smallest, ranging in lifting capacity from 1900 to 90,000 tons. They are usually made of concrete, steel, and sometimes wood.

What does a floating dry dock do? It docks ships, but that is not all. To explain, let's take an imaginary situation of a Pacific island called Boga. Boga is a small island and about the only good thing about it is its harbor. Boga is located about 2500 miles from civilization so it is used as a Fleet Repair Base.

In the harbor the ships of the Fleet come and go. They come in tired and battered, but when they leave, though probably not fully repaired, they are able to continue operating or can return to a shipyard for a complete overhaul.

The floating dry dock that makes these repairs is a complete mobile repair unit within itself. It has its own shops, berthing and messing facilities for its crew, storage and material barges, and other special duty barges. As many as 10 or more companion craft ranging from YC (open lighter) to APL (barracks ship) and YRDM (floating dry dock workshop-machinery) are needed for a large dock at an advanced base.

The mission of a floating dry dock in wartime is to make emergency repairs to units of the Fleet at bases that are near the area of operations. Floating dry docks performed this duty in an outstanding manner during World War II. Through their efforts many ships were saved and were able to return and inflict heavy damage on the enemy, thus materially shortening the war.

In spite of its specialized wartime mission, the floating dry dock does not become obsolete during peacetime. Ships still need repair, advanced bases must remain in operation, and commercial facilities may be either inadequate or lacking.

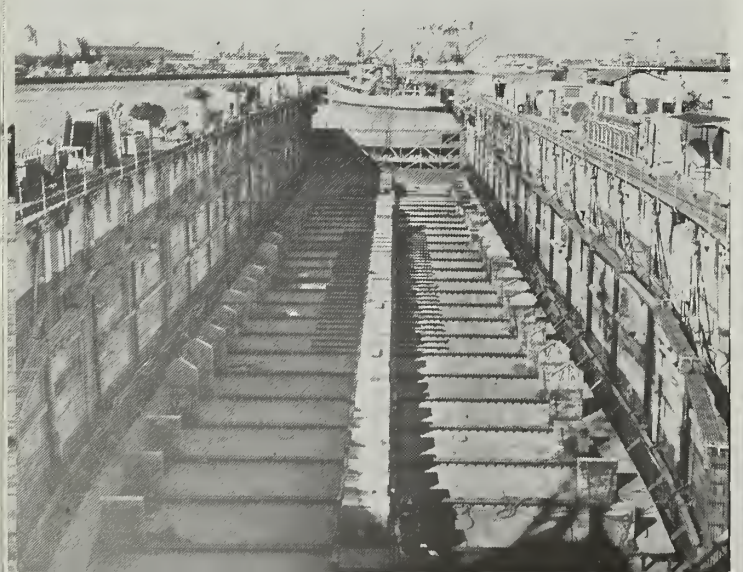
The mission of a floating dry dock in peacetime is understandably quite different from its wartime mission. Peacetime crews are reduced and very little work is done on a ship in dock by the dock's personnel. The dry dock is located at a repair activity, where repairs are accomplished by forces of the activity.

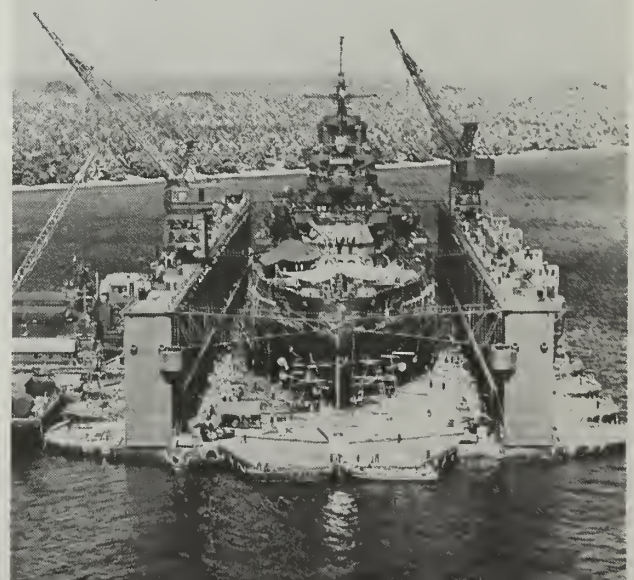
In this reduced operating condition, the crew must remain hard at work to keep up with the maintenance of their dry dock. Although the dock crew is reduced, the maintenance and operation of the dock remains unchanged.

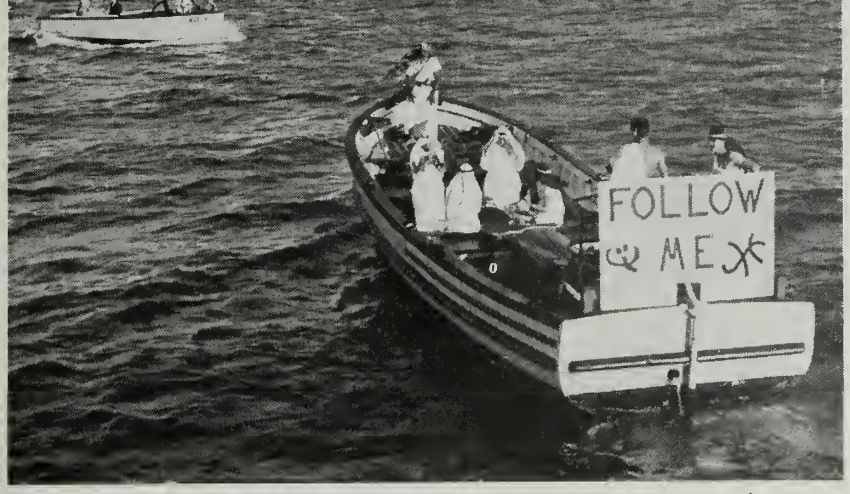
Cranes must be run, exposed steel must be painted, and machinery must be maintained. These conditions change the mission of the peacetime floating dry dock to docking and undocking of ships for repair activities, and performing maintenance on the dry dock itself.

—James R. Borberg, LTJG, CEC, USN

WIDE OPEN SPACE of ARD's docking basin waits for next job. *Right:* An ABSD of WW II repairs war-damaged BB.







'GEE BEE' men in decorated launch greet relieving crew of *USS Duxbury Bay*

HOT DUTY station in Middle East allows *USS Greenwich Bay* (AVP 41) to be painted white from bow to stern.

White Ship Duty

A visit to ports no American warship had ever entered, a feast at an Arabian "barbecue" and the witnessing of a rare exhibition of Khyber horsemanship are future subjects for sea stories by crewmen of USS *Greenwich Bay* (AVP 41). These are some of the events experienced during that ship's cruise in the Middle East.

The crewmen of the seaplane tender, which recently completed a six-month cruise in the Middle East, also played baseball in Arabia with American oil men, provided entertainment for a TV show in Pakistan and acted generally as U.S. ambassadors of good will.

At sea, the crew encountered 100-foot whales, giant turtles, squids, and experienced temperatures that soared to 125 degrees in the shade. Ashore, they saw endless deserts, Arabian horsemen and camels, strange Oriental costumes and other unusual sights.

The Arabian feast took place on Bahrain Island, just off the coast, when a local merchant invited the *Greenwich Bay* sailors to dinner. The meal consisted entirely of sheep cooked over hot coals, served without benefit of dishes or silverware.

On another occasion, the seaplane tender sailors were entertained by the Governor-General of Karachi, Pakistan. In honor of the occasion they were invited to an exhibition of horsemanship by the Governor-General's famous guards, many of whom are direct descendants of the famous Khyber horsemen.

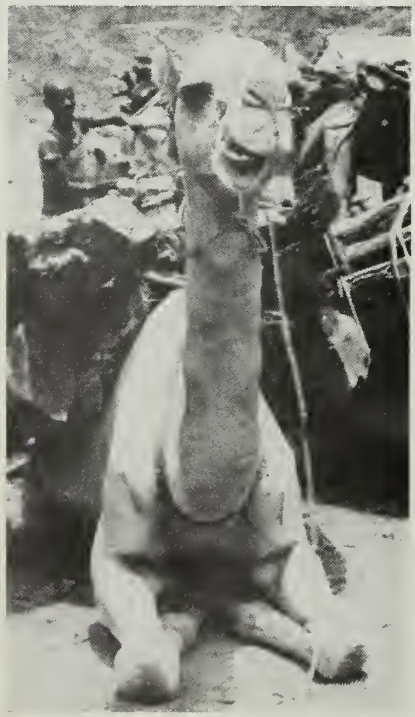
At Salala, Oman, *Greenwich Bay* had the distinction of being the first U.S. Navy ship in the old seaport.

Greenwich Bay, along with her sister ships USS *Valcour* (AVP 55) and USS *Duxbury Bay* (AVP 38), are the only Navy ships authorized to be painted white from bow to stern (with the exception of hospital ships which are normally painted white). Reason for this is the high temperatures encountered in the Middle East where the three ships operate.

—Jim Howard, JO3, USN, ComAirLant.

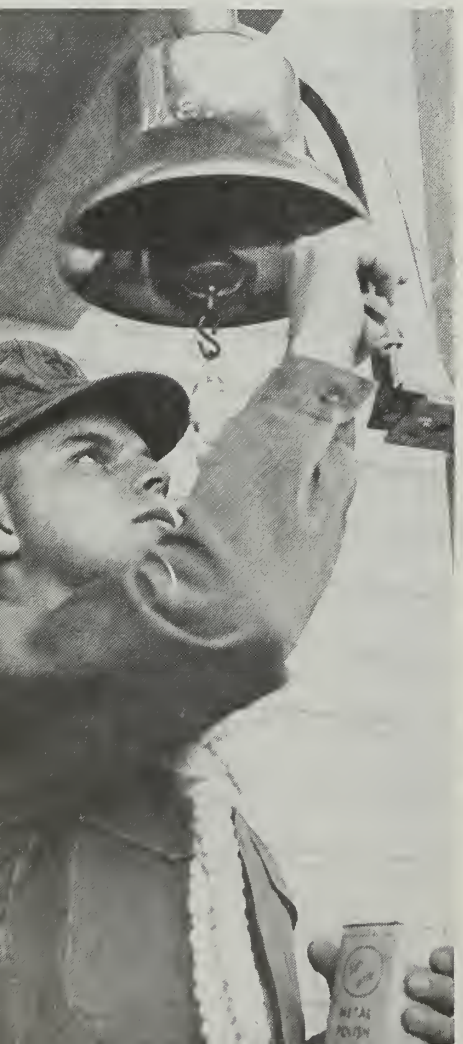
CO INSPECTS whitehat ranks on board *USS Greenwich Bay* dressed in shorts and shirts designed to beat the heat.

STRANGE ATTIRE—Uniform for Navyman in Middle East is as unusual as that of sailor in Arab robes and (right) unnamed individual in camel hair coat.



SEA SCHOOL GRADUATES, part of a carrier's Marine detachment, line up for inspection on the ship's elevator.

Sea School for Marines



When Rudyard Kipling wrote his verse about the Royal Regiment of Marines stationed aboard Her Majesty's ships and entitled it "Soldier an' Sailor Too," he vividly described a hardy breed from which the American "seagoing" Marine is a collateral descendant, with many similar customs and traditions. Down through the years, since the first Marine detachment under the command of Lt Daniel Carmick went on board *Ganges* in 1778, and American Marines gradually worked their way down out of the topsails and into the turrets of the modern day major ships of the U. S. Navy, they have proven countless times that they are "Soldier an' Sailor Tool"

These officers and men operate portions of the secondary battery and antiaircraft guns, perform guard and orderly duties and, if the occasion arises, function as the ship's landing party.

They do not get orders to sea duty just by chance. Because they are Marine Corps representatives in close contact with the Navy, and later the Corps' "ambassadors" in many a foreign port, these men are volunteers, thoroughly screened and trained be-

MARINE CORPS 'spit and polish' is applied to ship's bell that sounds the time at sea school. *Right:* Marine goes over some salty notes from day's classes.

fore they ever set foot on the deck of a Navy ship.

The "seagoing" Marine is the recruiting poster type Marine, the lad who wants to join the Leathernecks and see the world, to receive what he considers to be his fair share of excitement and adventure. It isn't difficult to get volunteers.

At San Diego's Marine Corps Recruit Depot, site of one of the Corps' two Sea Schools (the other is at Norfolk, Va.), approximately 60 volunteers a month come directly from Camp Pendleton. They have been individually interviewed, screened and given every opportunity to back out. Sea School is even more intensive than the ten weeks of boot training and the combat infantry training at Camp Pendleton they have just completed.

When the new students report in from their boot leave they have, according to the critical standards of MSgt. H. F. Moeller, "Top Sergeant" of the school, "a tendency to be just a little 'loose.'"

The first morning of class for the new students sees this "looseness" disappear in short order and the "top" gives the opening talk. The men are reminded with considerable emphasis of their primary duty they will be expected to perform after they report on board ship—"To take charge of this post and all government property in view"—their first General Order.

They are cited inflexible regulations concerning the wearing of their Dress Blues and the care and upkeep necessary to maintain an immaculate appearance at all times.

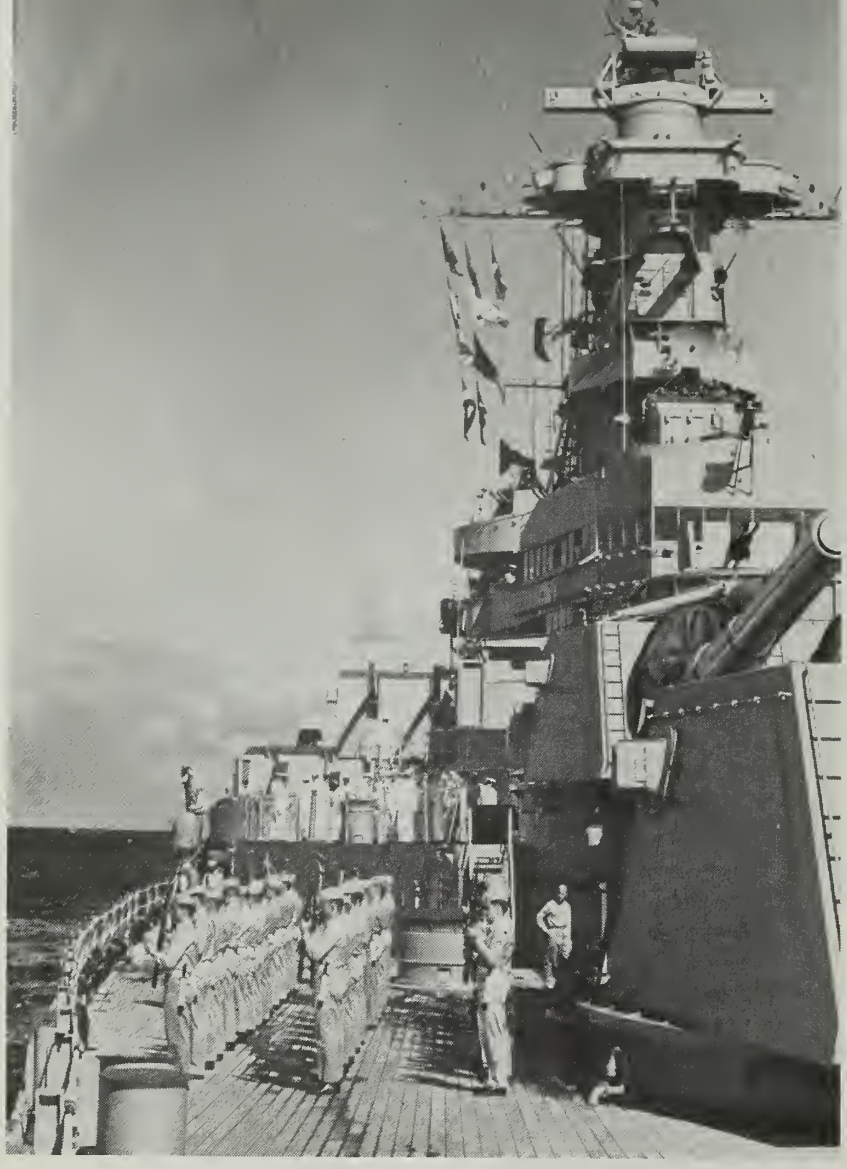
They are briefed on the terminology used at Sea School (especially on the meaning of "squared away").

Emphasis is given to the discipline that must be maintained while in a student status and later while a member of a ship's detachment. Finally, the "top" imparts to the group the need for becoming self-sufficient and capable of doing the proper thing on their own initiative. This, he points out, is an important change from boot camp where the Drill Instructor does most of the thinking and the recruit does the doing.

The class is then divided into platoons, each under the supervision of a seasoned NCO, usually a veteran of sea duty, the drill field and combat.

The following four weeks are crammed with study in the classrooms, gun-sheds and on the parade ground. Although the student is

SWAPPING SKILLS—Leathernecks share small-arms knowledge with crew. *Below:* Chief Gunner's Mate shows Marines in sea school use of ship's guns.



DUTIES AT SEA—Honor Guard detail keeps in practice on deck of *USS New Jersey* (BB 62). *Below:* Watch is relieved on board *USS Wisconsin* (BB 64).

granted liberty every night, he finds that extra duty requirements leave him little time to "go out on the town."

In the classroom, the potential sea Marines, in addition to regular military subjects, study such specialized and appropriate topics as sea terms and Navy traditions, ships' nomenclature, compartmentation and recognition, aircraft recognition, emergency drills, ships' internal security, small boats and small boat etiquette, and the naval landing party procedures—subjects with which their landlubber counterparts are rarely familiar.

This steady diet of seagoing fare is augmented with a flow of subjects all Marines must know: the rifle, pistol, first aid, squad and platoon tactics, military courtesy—in effect, a refresher course in boot training.

Next to the barracks is the gunshed—a well-used gunshed. Two Navy CPOs, veterans of years of sea duty and Navy ordnance training, take over many hours of instruction here. The students shed their classroom uniforms of Blues, Undress, Baker and don their working uniform consisting of Marine green utilities and helmet liners. They are formed into gun crews on the 20mms, 3-inchers, and twin 40s and before the chiefs are through with their phase of instruction, the students are ready to take their places in the secondary battery of any one of the Navy's major ships.

They learn loading drill, ammunition markings, rate of fire and the importance of knowing their particular job within the crew.

Marines have often paid compliments indirectly to their CPO instructors back at Sea School by taking top honors in Fleet firing competitions.

In between classes, the students are drilled in the art of marching. They march to chow, to the quartermaster, to the movies and in doing so, they learn to MARCH.

When the four weeks draw to a close, every man has taken on a polish that is many coats deep. On graduation day he puts on his full uniform that is recognized throughout the world as that of a U. S. Marine, and he steps forward to receive his graduation diploma. It's a big day.

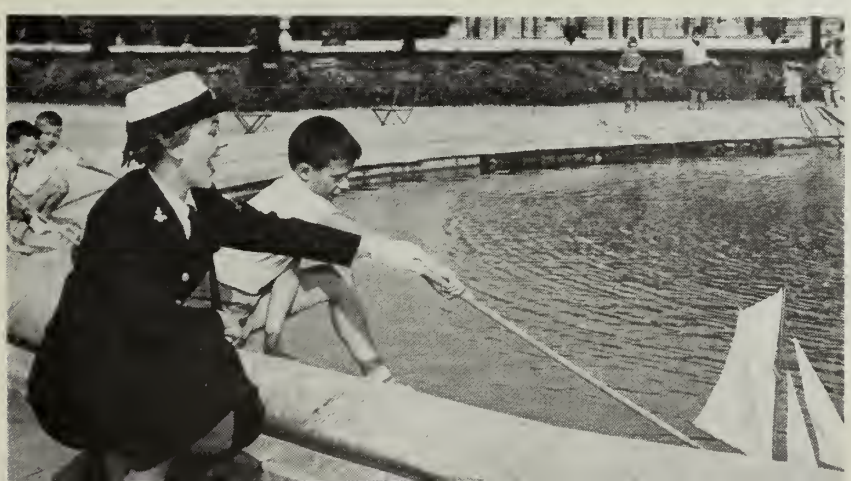
From the San Diego Recruit Depot where he began his training nearly seven months before, he will go aboard ship, ready and able to carry out his first General Order and to take his place among the "Seagoing Marines." —MSgt Richard G. Waite.

Paris in the Spring

PARIS AND SPRING, this combination is hard to beat and has won the French capital world fame for many years. Navymen and women pulling duty at Headquarters, European Command, located near Paris have been enjoying good liberty, seeing for themselves why so much has been written and sung about this fair city.

Armed with the weapons of the tourist (camera and guidebook) the bluejacket trio pictured here is representative of past and future "landing parties" destined to view such sights as the Eiffel Tower, Arc de Triomphe, Louvre, and Notre Dame.

Top left: Sophie Chucknick, YN2, Ronald Green, CD3, and Marianne Chambliss, TESN, check their guide book for facts while viewing birthplace of Louis XIV. *Top right:* Touring trio receives directions from a gendarme just inside the gate of Palace of Versailles. *Right:* Yeoman Chucknick enjoys a motor tour of Paris in sports car. *Lower right:* French Military policeman checks passes on return to base. *Lower Left:* Local boy with boating problem receives help from the Navy.



Brief news items about other branches of the armed services.

CONVERSION of U. S. Air Force heavy bomb wings from B-36 to B-52 aircraft is scheduled to begin this month with the 42nd Heavy Bomb Wing at Loring Air Force Base, Me. Replacement of all B-36 units is expected to take several years.

As they are replaced by the faster, more effective all-jet B-52s, the oldest B-36s will be dismantled and utilized as a source of spare parts for those remaining in service. It has been necessary in the past to continue production of parts, even though manufacture of complete airplanes was stopped some time ago.

Some B-36 equipment is interchangeable with and can be used on other types of aircraft.

The U. S. Air Force has one B-52 wing now stationed at Castle Air Force Base, Calif. Before conversion to B-52s, the wing was equipped with B-47s.

★ ★ ★

PNEUMATIC DUNNAGE, used to prevent damage to military supplies during shipment in freight cars is under test at Utah Army General Depot, Ogden, Utah, by the Quartermaster Corps.

The pneumatic dunnage consists of specially designed, highly elastic and resilient air mattresses which are inserted in open spaces between components of the cargo and walls of the freight car to hold the cargo firmly in place during transit. The dunnage is intended to replace conventional lumber shoring. If eventually adopted for general military use, it is expected to result in great savings of material and labor.

The Utah General Depot is the location of a Quartermaster storage operations research team engaged in study and experimentation in the fields of storage, mechanized materials handling, and shipping and receiving of military supplies.

A unit of the new dunnage weighs about 28 pounds. It consists of an outer casing of 13-ounce nylon fabric coated on the outside with neoprene and an inner bladder of unsupported butyl compound equipped with a large volume diaphragm valve. The dunnage can be reused indefinitely.

F-100 *SUPER SABRE* jets cut the sky. The fighters, holders of 822-mph record, are being assigned to USAF bases.

GROUND FORCES get the air. An infantryman flies an aerocycle during tests to determine its possibilities.

NEW INSIGNIA FOR WARRANT OFFICER in the Marine Corps and Army have been approved.

A "bursting spherical shell" has been picked as a new distinguishing rank insignia for Marine Corps warrant officers who are designated Marine gunners.

The insigne is similar to that worn by Marine gunners before WW II. It will soon be available in bronze for the service uniform and gold for dress uniforms.

With the service uniform, it will be worn on the left collar of the khaki shirt. Warrant designation will be placed on the opposite collar. On the dress uniform it will be placed on each side of the standing collar, two inches to the rear of the ornament.

The new insigne for Army warrant officers consists of gold or silver bars with contrasting lateral brown bands.

Although the new insignia may be worn at once, the old type will be authorized until 1 Dec 1956.

By grades, the insignia consist of:

CWO, grade 4: silver bar with three brown enamel bands.
CWO, grade 3: silver bar with two bands.
CWO, grade 2: silver bar with three bands.
WO, grade 1: gold bar with two bands.

★ ★ ★

AN "EXPRESS BALLOON" which rises at an average speed of 1800 feet per minute and collects weather data almost twice as fast as weather balloons now in general use has been developed by the Army Signal Corps.

Equipped with radiosonde, the balloon rises while a miniature transmitter flashes back vital weather statistics from varied altitudes to a ground rawin (radio wind finding) receiving station. The ground station automatically records such data as pressure, temperature and humidity. Wind speeds at heights ranging up to 80,000 feet may also be recorded.

The radiosonde attached to the balloon floats back to earth by parachute after the balloon bursts at an altitude of about 15 miles.

The new balloons are made of neoprene, a synthetic rubber, and are three times stronger than balloons which have been used previously. They are inflated with 300 cubic feet of hydrogen, more than twice as much as

used in standard type, thin-wall balloons which ascend at a speed of only 1000 feet in a minute.

Standard balloons are six feet in diameter on release while the new type is seven feet. The improved fast-rising balloons ascend nearly straight up over the receiving station, insuring faster, more direct reports whereas standard type balloons are sometimes blown out of range of the ground-tracking set.

A SIMPLE, RUGGED LITTLE detector that tells at a glance how much deadly gamma radiation the body has absorbed has been perfected for the Army and Civil Defense authorities after extensive testing by the Signal Corps.

Resembling a stubby fountain pen, the new device is ready for mass production. Signal Corps engineers have described the instrument as the best personal dosimeter yet developed for Army troops.

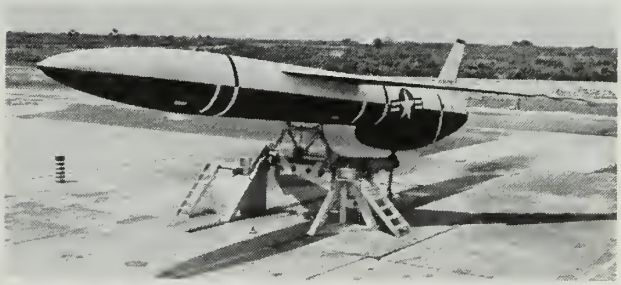
The "Fountain Pen Dosimeter," known technically as Radiaometer IM-93, records gamma radiation up to 600 roentgens. The roentgen is a measure of gamma radiation absorption from such sources as the atomic or hydrogen bomb. A medically recognizable dosage is about 25 roentgens.

An easy-to-read scale reveals the total radiation the body has been exposed to over the time the dosimeter is carried. This provides a constant check on "gamma fever."

The new Army Signal Corps dosimeter is clipped to the pocket like a pen or a clinical thermometer. It needs no delicate handling or special care, however. In tests it worked perfectly after being thrown 20 feet against a solid wall and dropped on a concrete floor.

It also operates after immersion in water and at high altitudes. It is unaffected for all practical purposes by arctic cold or desert heat.

The new detector can be stored indefinitely before use, giving it a marked advantage over the commonly used photographic badge dosimeters. The latter deteriorate after long storage or exposure to abnormal heat. In addition, after its original electric charge, the new instrument can be used over and over again for years with infrequent rechange, while photographic emulsions, once developed, must be replaced.



SM-62 *SNARK*, a new USAF long-range strategic missile now being tested, poses for its first official photograph.

A PORTABLE TELEVISION TRANSMITTER that will permit a scout to transmit actual battle views back to headquarters has been introduced by the Army's Signal Corps.

The new unit weighs a total of 55 pounds and can transmit a picture about half a mile in flat terrain. It is composed of an eight-pound camera equipped with a pistol grip and a 47-pound battery case and transmitter strapped on the operator's back.

Earlier combat television equipment was severely limited in mobility by its dependence on an external power source.

The new unit operates on a five-cell rechargeable silver-zinc battery, which can keep it going continuously for two hours. The battery can be replaced in two minutes.

Tests have shown that the unit permits the scout to use the protection of woods and hedge rows and to cross ditches and streams, all of which were virtually impossible with the earlier models. The new unit does not transmit sound. This is handled by the traditional "walkie-talkie."

The receiving end of the new outfit consists of a 10-inch screen set, which can operate on either house current or the electrical system of a jeep.

The Signal Corps says the unit could be set up in exposed positions for such uses as artillery fire observation, and left there unmanned. It could also be used unmanned in suspected radioactive areas, where it would be unaffected by radiation that might be fatal to a soldier on a reconnaissance mission.

'FOUNTAIN PEN DOSIMETER' perfected by Army Signal Corps gives easy-to-read measurement of gamma rays.

ARMY'S NEW TV camera is battery-powered, freeing camera of cables. *(Rt.)* Picture is received on portable set.

LETTERS TO THE EDITOR

Course Taken in Earlier Grade

SIR: BuPers Inst. 1416.1A (Para. 6 (d) and (e)) states in essence that correspondence courses completed within the last two grades are valid for exemption purposes in officer promotion examinations. Further, this paragraph states that the grades of ensign and lieutenant, junior grade, are considered as one.

In light of the above, would a correspondence course completed in the rank of CHRELE be valid for promotion to lieutenant? This question is based on the interpretation that CHRELE would be one grade and the period of service as ENS and LTJG as the other.

If the above is correct, would the correspondence course in *Navy Regulations,* (NavPers 10740), completed in 1949, be acceptable now? The present course is NavPers 10740A.—J. K. P., LTJG, USN.

• *Your interpretation of the instruction is correct, but the course you mentioned cannot be counted. The earlier course was based on the* 1920 *edition of "Navy Regulations," while the newer is based on the* 1948 *edition.* NavPers 10740A *is the only one which will provide exemption in some grades and categories of officers. Any others that you took as a CHRELE, the grade immediately preceding ENS, giving exemption in your category, are good.*—ED.

Proficiency-in-Rate Marks

SIR: According to *BuPers Manual,* to be eligible for advancement in rating to first and second class, an enlisted man must have an average proficiency-in-rate mark of 3.5 one year before the date his advancement becomes effective. In computing this average proficiency-in-rate mark, are only the man's quarterly marks taken into consideration, or are the marks he received when he was transferred from previous duty stations included? — L.D.T., YN3, USN.

• *Only the quarterly marks are considered for computing the average for advancement in rating. As specified in the "BuPers Manual," occurrence marks are assigned in certain cases. However, the quarterly mark cannot be higher than any mark assigned for that period. Therefore, computation of only the quarterly mark is considered necessary. Otherwise an individual assigned low occurrence marks would be doubly penalized.*—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letters to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Choice of Duty on Reenlisting

SIR: From my present duty station, a ComCruDesPac destroyer, I requested duty in Naval Beach Group One (which comes under ComPhibPac) and stated in my request that I would reenlist upon receipt of orders.

My request was disapproved; they said in my ship that there are no provisions for such transfers—yet I have read stories which stated that men on East Coast duty could get West Coast duty by reenlisting. Please explain to me why I can't get the duty I desire.—R. F. A. SD1, U.S.N.

• *You* can *get the duty you desire, under authority of BuPers Inst.* 1306.25B. *This Instruction provides that a man reenlisting in the Navy may select the coast of his choice, and if vacancies exist at the time, be assigned to the Type Commander of his choice. Your personnel officer can advise you of your entitlement.*—ED.

Promotion to Chief Warrant, W-4

SIR: I am a temporary Chief Warrant Officer W-3, with a 15 Mar 1950 date of rank. In June 1955 a board met to select CWOs for W-3 and W-4, and I was picked for the W-4 grade.

Can you tell me how this promotion will go into effect? Will my commanding officer or I receive a letter directing the promotion? Will the effective date of promotion for pay purposes be the date of my acceptance or the date on which I completed the required 12 years of service?—P. T., CHPCLK, U.S.N.

• *When you have completed six years in grade (computed from your date of rank as CWO,* W-3) *an individual appointment letter will be prepared and forwarded to you via your commanding officer.*

Inasmuch as you completed six years in the grade of chief warrant officer, W-3, *on* 15 *Mar* 1956, *that date will be the date of rank and effective date for pay purposes of your promotion to chief warrant officer,* W-4.—ED.

Advancement After Release

SIR: There is a BuPers Instruction that states that Naval Reserve personnel on inactive duty may be advanced as a result of a service-wide competitive examination taken while on a tour of active duty. I would like to know if this also applies to Regular Navy personnel who take the service-wide competitive examination and then are released to inactive duty but still have four years' Ready Reserve time incurred under the Universal Military Training and Service Act. If it does apply, what procedure is to be followed to effect this advancement?—H. A. D., YN3, USNR.

• *The provisions of paragraph* 12 *of BuPers Inst.* 1430.7A *apply to all personnel in the Naval Reserve who participated in service-wide examinations while on active duty regardless of whether they were USN or USNR at the time of the examination.*

The procedure to be followed in effecting this advancement is outlined in BuPers Inst. 1430.1A. *Briefly, the commandant of the naval district in which the Reservist resides must request authority to effect advancement to the appropriate emergency service rate associated with the rating for which the Reservist was examined while on active duty. In order to be eligible for advancement under the provisions of BuPers Inst.* 1430.7A, *anyone who is discharged must enlist (or reenlist) in the Naval Reserve within three months of his discharge date from the USNR or USN. Note that advancements must be effected within one year of the date of the examination.*—ED.

Question on Sea Pay

SIR: I have a question regarding sea pay. Was there any kind of sea pay for enlisted men in 1941? If so could you give me the details as I've had several friendly arguments over a cup of coffee concerning this and we have agreed to take your word as the final scoop.—R.J.B., SKC, USN.

• *There was no sea pay authorized for enlisted men in* 1941. *It was discontinued in* 1922 *and not restored until the Pay Readjustment Act of* 1942. *However, during that time enlisted men were authorized an increase in base pay of* 10 *per cent upon completion of the first four years of active service and five per cent upon completion of each four-year period thereafter, not to exceed* 25 *per cent.*—ED.

Return at 0900

SIR: Your Letter to the Editor "Dividing Line is at 0900" in the January 1956 issue of ALL HANDS—concerning time of reporting back from leave—is in direct conflict with a letter which the Officer-in-Charge, Naval Accounts Disbursing Office, Naval Station, San Diego, Calif., received from the Chief of Naval Personnel. According to the answer you printed in the letter in question, you stated that there was "no liberal interpretation to Art. C-6305(1) in *BuPers Manual* which states in part: 'The day of departure on leave, whatever the hour, shall be counted as a day of leave, the day of return from leave shall be counted as leave, except when such return is made before 0900 in which case it shall be counted as a day of duty.' "

In the letter to the NADO Naval Station, San Diego, from the Chief of Naval Personnel, it was stated in part: "... since Art. C-5318, *BuPers Manual,* makes no provision for members returning from leave at exactly 0900, while Art. C-6305, *BuPers Manual,* provides that a member will not be charged a day of leave when reporting prior to 0900, it is considered that a member reporting from leave at exactly 0900 is in a duty status for the day in question."—J. I. H., YNC, USN.

• *It seems highly improbable that anyone would return from leave the exact minute and second of the expiration of leave. However, since this same question has been raised a number of times, it appears to be founded in fact. In this connection, it would appear that some leave papers are being endorsed to show the time of reporting as* 0900, *even though the man may have actually returned before that time. The question of whether it is a day of duty or day of leave when a member reports back from leave at exactly* 0900, *is presently under study by the Bureau for possible clarification. This clarification, if approved, will appear in the form of a change to the "BuPers Manual"*—ED.

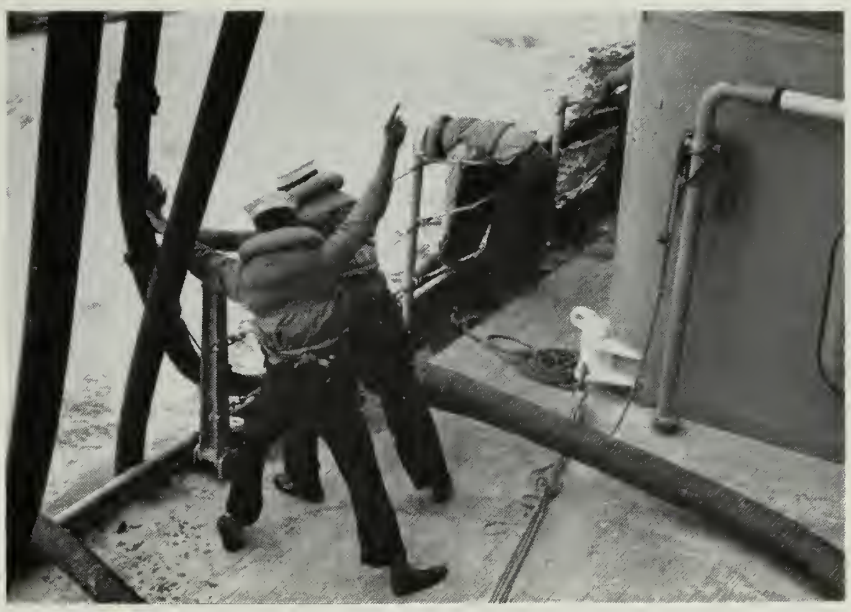
Radioman's Materiel School

SIR: I am one of the many "tenth readers" of ALL HANDS—usually I can't lay hands on a copy until it's a month or two old. If you have published any information on a Radioman's Materiel School (to be opened soon, I believe) I haven't seen it, although I did see a reference to the school in one of the "Letters to the Editor."

Can you tell me where the school is to be located, when it is to open and the length of course? I'd also like to know if I will be eligible to attend or if not, what is the possibility of my attending an ET school?—C. W. R., RM2, U.S.N.

• *The Radioman's Materiel (RM/B) School is already in operation at Bainbridge, Md. This school includes considerable instruction in electronics materiel and the course is of* 30 *weeks' duration (DUINS). Shore commands may request quotas from the Chief of Naval Personnel; sea commands, from type or service force commanders.*

Eligible ratings are RM2 and above. You will be eligible for the RM/B school upon completion of your tour of shore duty, and should show this choice on the Shore Duty Survey Report.—ED.



'HOIST AWAY'—Seaman on refueling detail gives signal to boom operator to hoist fuel line during refueling at sea while underway in rough waters.

Stars for Silverstein

SIR: I have been following the "Letters to the Editor" column for quite a long time now and have never been able to find anything about USS *Silverstein* (DE 534) and her service during the Korean conflict.

Having put about 19 months aboard the "Fighting Irishman," I know that both she and the other ships in her squadron deserve a little more public credit, if not praise, for their part in the Korean war.

Even though they had so little to offer in the way of firepower, speed or size, they more than made up for it in spirit and guts. I'm sure that many who were there will recall seeing those little DEs steaming around Wonsan Harbor with the larger DDs and trading fire with the shore batteries.

Could you please tell me what ribbons *Silverstein* rates for her tour in the Far East from the time she arrived there in the fall of 1951 until she left in 1952? I would like to know if she rates the Korean Presidential Unit Citation and how many stars go on her Korean ribbon.—R. D. C., ET1, U.S.N.

• *Nobody denies that* Silverstein *and the other ships her size did a terrific job during the Korean conflict, but we can't print the story unless you and the other people who serve in the ships let us know about it.*

As to ribbons, Silverstein *rates the China Service Medal for the period* 4 *Jan* 1952 *until* 18 *Feb* 1952; *the Korean Service Medal with three stars for the periods* 21 *Nov to* 27 *Nov* 1951, 30 *Nov to* 12 *Dec* 1951 *and* 9 *Mar to* 30 *Apr* 1952, 23 *May* 1953 *to* 27 *Jul* 1953; *and the Korean Presidential Unit Citation for the dates* 8 *Nov* 1951 *until* 15 *May* 1952, *and* 21 *May to* 27 *Jul.* 1953.—ED.

Blue Working Jacket and Cap

SIR: The new blue working jacket and baseball-type cap are two of the best uniform articles the Navy has, yet we have been informed that we can only wear them with dungarees. Was this limited use intended?

I thought that they were meant to supplement the peacoat in warmer weather and could be worn with undress blues as well as dungarees. After all, undress blues are considered a working uniform. What is the story on this? —R. C. S., SKG3, U.S.N.

• *You are right in your surmise that the blue working jacket and cap may be worn with either undress blues or dungarees ("Uniform Regulations," Article* 1114). *However, since the jacket and cap are new items it may be that your commanding officer desires to limit their use to dungarees until the supply is adequate for all to have them. Since establishing the uniform of the day is your commanding officer's prerogative, it is up to him to decide whether you can wear the new jacket and cap with undress blues.*—ED.

ALL TOGETHER — Color-bearers representing U. S. military team stand at attention for Armed Forces Day.

Medals for Foreign Servicemen

SIR: May a French naval officer, who had the opportunity to serve in North Africa in 1943 and 1944 with the U. S. Navy, doing liaison work, be authorized to wear the American ribbon for the North African campaign?—P. M.

• *U. S. Navy campaign and service medals are restricted to the members of the armed forces of the U. S. and may not be awarded to the members of the armed forces of foreign countries.*

In view of the fact that the Allies of the U. S. participating in WW II established their own campaign and service medals, it was mutually agreed that armed forces of one co-belligerent nation would not be permitted to accept such medals from other co-belligerent countries.

As a result, under existing regulations, military personnel of other nations are not eligible for any campaign or service awards from the Department of the Navy in recognition of their services in liaison with U. S. Naval forces—ED.

KPUC for Fort Marion

SIR: In the story "Citations for Bold Ships, Brave Men" (ALL HANDS, May 1955, p. 8), you didn't mention my ship, USS *Fort Marion* (LSD 22). Wasn't she awarded any citations or commendations for action in the Inchon landing, Wonson landing, Hungnam evacuation, or the daylight Commando Raid, east side of Korea? Also, didn't the USS *Mississippi* (BB 41) earn the ETO campaign medal for her efforts during World War II?—L. D. M., DCC, USN.

• USS Fort Marion (*LSD 22*) *was awarded the Korean Presidential Unit Citation for action in Korea from* 2 *Aug* 1950 *to* 31 *Mar* 51.

USS Mississippi, *which now carries the designation of EAG* 128, *did earn the European-African-Middle-Eastern campaign medal during World War II.*—ED.

Proceed Time for Recruiter

SIR: Is proceed time authorized for Navy Recruiters who change duty stations from a main station to a branch station?—D. F. M., YN1, USN.

• *If an enlisted man, after serving a tour of duty at a main station, is transferred to a branch station for permanent duty, he may, at the discretion of the officer-in-charge of the main station, be granted four days proceed time if he is otherwise eligible for such proceed time in accordance with Article C-5316(8) of "BuPers Manual."*—ED.

Carbon Signatures?

SIR: While we were shifting our pay records from one office to another the following question came up.

Page 7, the Individual Order to Adjust Pay Record (NavSandA 515) had been signed with a ball-point pen with the carbon paper still intact. To our mind this complied with Article B-2305 (9) *BuPers Manual*, in that all copies would be signed. However the disbursing activity to which we are now attached insists that each of the four sheets be signed individually in ink. Can you give us the official ruling on whether a carbon-signature is acceptable or whether each copy must be individually signed in ink?—C. N. M., YN1 (SS), USN.

• *Disbursing is right. Carbon signatures are not acceptable on copies of page 7 of the enlisted service record. The signatures must be freehand to insure that they are properly signed copies. The copies can then be used in place of the originals should they be lost in transit.*—ED.

Qualifying as Diver

SIR: I am a BM3 (TAR) and very interested in qualifying as a second class diver. However, I have been told that I cannot attend diving school unless there are billets in the Navy for BM3 (TAR) divers. Can you tell me whether such billets exist?

I would be willing to reenlist in the regular Navy, if necessary, to qualify for the school, but then I would have to revert to SN—and that would make me ineligible by virtue of rate.

I would appreciate any information you can give me on this matter.—M. P. S., BM3 (TAR), USNR.

• *While the Naval Reserve has no TAR billets that require qualified diving personnel, if you came into the Regular Navy as an identified striker for the BM rating you would be eligible for attendance at NavSchol Ship Salvage, Second Class Divers Course. If you wanted to strike for another rating, you could still request a waiver of the rating requirement in order to attend divers school.*—ED.

Bowler Looking for a Team

SIR: I would like to know if there is an All-Navy bowling team which competes in the big national tournaments. If so, how would I get on it? If not, how can I get on a local team? —R. L. G., SN, U.S.N.

• *There is no Navy bowling team as such, although each ship or station may sponsor its own. If your ship has none you may contact the Special Services officer in your chain of command. For details on bowling see BuPers Inst.* 1710.1.—ED.

SHIP'S COMPANY of *USS Princeton* (CVS 37) parade in Bangkok, Thailand, as whirlybirds pass over. Following ceremonies, liberty was enjoyed by all.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, All Hands Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• *Fifth Special Naval Construction Battalion*—The third reunion of the Fifth Special N.C.B. will be held in the Sheraton Hotel, Chicago, Ill., on 6, 7 and 8 July. For further information write to L. M. Kerrison, Box 607, Haynesville, La.

• *Naval Operating Base* 157—A reunion of all hands formerly attached to this base in Palermo, Sicily, will be held in Chicago, Ill., on 23 June. Contact A. L. Coddington, 679 Carlyle Place, Union, N. J., for further information.

• *Ninth Naval District Shore Patrol Association*—The annual reunion of this group will be held at the Karcher Hotel, Waukegan, Ill., on 25, 26, and 27 May. Additional information can be obtained by writing to Sergt. Michael Dyer, c/o Waukegan Police Department, Waukegan, Ill.

• *Third Special Naval Construction Battalion*—Former members of this unit will hold their annual reunion on 20, 21 and 22 July in Racine, Wis. Write to Ivo Haines, Box 114, Creston, Ill., for additional information.

• 30*th Naval Construction Battalion*—The 10th reunion of former members of this unit will be held 26 May in the Statler Hotel, New York, N. Y. Contact D. J. Salemi, 42-04 Saull St., Flushing 55, N. Y., for additional information.

• USS *Hornet* (*CV* 12, *now CVA* 12)—The eighth annual reunion of former crew members of this ship will be held in the Park Sheraton Hotel, New York, N. Y., on 15 and 16 June. Additional information can be obtained by contacting Kenn Henderson, USS Hornet Club, Box 312, Wall Street Station, New York 5, N. Y.

• USS *Kidd* (*DD* 661) and USS *Black* (*DD* 666)—A reunion of former members of these ships will be held 29 and 30 June and 1 July at the Park Beach Hotel, Flamouth Heights, Mass. Further information can be obtained from Association Headquarters, 310 East 8th St., Kewanee, Ill.

• USS *Massachusetts* (*BB* 59)—Former crew members will hold their 11th annual reunion at Hotel Somerset, Boston, Mass., on 12 May. Contact J. E. Shiels, YNC, NAS South Weymouth, Mass., for further information.

• USS *Owen* (*DD* 536)—The ninth annual reunion of former shipmates will be held 1, 2 and 3 September in the Hotel Somerset, Cincinnati, Ohio. Those planning to attend are requested to make their own reservations.

• USS *President Adams* (*APA* 19)—Former crew members of this ship will hold their second annual reunion in New York City on 1 September. Contact Albert Filipelli, 1546 Kimball St., Brooklyn, N. Y., for further information.

• *Waves*—Waves will celebrate their 14th birthday with a reunion to be held in the Chase Hotel, St. Louis, Mo., on 27, 28 and 29 July. All present and former Waves and World War I Yeomanettes are invited to attend. Further information can be obtained by writing to Wave Reunion Committee, Room 405, 911 Locust St., St. Louis, Mo.

• *NAS* (*LTA*) *Weeksville*—Former members of this station crew during World War II interested in holding a reunion, with time and place to be decided by mutual consent, contact Marion Killian, 1212 Capital Club Bldg., Raleigh, N. C.

• USS *Cowie* (*DD* 632-*DMS* 39)—Former crew members interested in holding a reunion with time and place to be decided by mutual consent should contact William M. Walker, 4101 Seymour Dr., Dearborn, Mich.

• USS *Douglas A. Munro* (*DE* 422)—All former shipmates who served in this ship from July 1944 to June 1946, interested in holding a reunion with time and place to be decided by mutual consent, should write to George E. Miller, EMC, USS *ARD* 5, FPO New York, N. Y.

• USS *Pawcatuck* (*AO* 108)—Shipmates who served in this ship during 1946 and 1947, interested in holding a reunion, should contact James V. Parks, 1417 Willett Avenue, S.E., Canton 7, Ohio.

It's Chief Warrant Officer

SIR: In reading various official Navy manuals I have noticed that some refer to a CWO as a Chief Warrant Officer while others refer to a CWO as a Commissioned Warrant Officer. Once and for all, could you clear this matter up and give everyone the right title to be given a CWO?—J. T., PNC, U.S.N.

• *The correct title is Chief Warrant Officer. The higher three grades of warrant all receive a commission from the President of the United States, the same as any other commissioned officer, but it is no more correct to call a W-2, W-3 or W-4 a commissioned "warrant officer" than it would be to call a commander a "commissioned commander."*—ED.

Request for Retest

SIR: I would like to know if it is possible to take a retest on the basic battery test on arithmetic. My ARI score is comparatively low in relation to my other scores. I would like to do this so that I would be eligible for NavCad training. —D. C. R., MN3, U.S.N.

• *You should submit a request for retest to the Chief of Naval Personnel (Attn: Pers B224) according to Art. C-3204, "BuPers Manual." In your request, you should include: (1) purpose of retest; (2) results of initial testing in terms of test scores on all classification tests recorded in your service record; (3) date of original testing and date of retest if applicable; (4) formal schooling completed prior to original testing and date such schooling was completed; (5) schooling and experience since date indicated in item 3; and (6), All other pertinent information concerning conditions under which previous testing was accomplished which would have a bearing on the request for retest, such as a language difficulty. Also, in the forwarding endorsement, your commanding officer should indicate his evaluation of the merits of your request.* —ED.

Eligibility of Waves for BAQ

SIR: I was discharged from the Navy a few months ago and have a question regarding the Basic Allowance for Quarters. I am married to a Wave, SK3, who is still serving in the Navy and we wonder if she can draw BAQ, claiming me as a dependent.

While I was in I drew it for her, but now this command doesn't seem to be able to determine whether she rates it as a married woman with a civilian husband. What's the score?—W. W., ex-DK2, USN.

• *When you and your wife were both members of the Navy, eligibility for assignment to public quarters for dependents or for the payment of basic allowance for quarters rested with you, the male member. The law does not recognize the husband of a service woman as a dependent, unless he is in fact dependent on his wife for more than one-half of his support. Check section 102 (g) of the Career Compensation Act of 1949 and you will find that she is considered as a member without dependents for the purpose of entitlement to BAQ, unless she has dependents as outlined in that section. You will find the subject is covered in "Naval Comptroller's Manual," para. 044035-2b(4) and 044035-3b.*—ED.

Consent Papers

SIR: In the article, "Scouting for Talent to Run Navy Ships," which appeared in ALL HANDS for November 1955, you said that consent papers were needed to recruit a man less than 21 years old. I would like to know what law or regulation covers this subject and whether or not the statement was correct.—P. S., ETSN, U.S.N.

• *We were wrong. A man 18 or older does not need the consent of his parents or guardians in order to enlist. The law on this is found in Title 34, U. S. Code 161, which says:*

"No minor under the age of 14 years shall be enlisted in the Naval Service; and minors between the age of fourteen and eighteen years shall not be enlisted for the Naval Service without the consent of their parents or guardians."

However, the Navy no longer enlists men under 17.—ED.

Filipinos Serving in Navy

SIR: Could you clear up a few questions for me in regards to the benefits, privileges and entitlement of Filipinos serving in the U. S. Navy as stewards.

Question one: I enlisted in the Navy without a dependent but now my mother needs help financially. Can I have an allotment sent to her, or do only married men get BAQ?

Question two: Am I entitled to the benefits under the Korean G.I. Bill, including the educational benefits and the G.I. Loan?—F. N. E., TN, U.S.N.

• *Under the Dependents Assistance Act of 1950, as amended, you may receive a basic allowance for quarters on behalf of your mother, provided that she is in fact dependent upon you for more than one-half of her support. Since you enlisted without dependents you will have to show that the financial circumstances of your mother have changed since you came into the Navy, and changed to such an extent as to cause dependency on you for more than one-half support.*

As far as question two is concerned you receive the same benefits from the Korean G.I. Bill as any other man in the Navy, provided you have the service requirements. The fact that you are a Philippine citizen does not change your entitlement one bit.—ED.

Duty Involving Flying

SIR: My questions pertain to a person ordered to duty involving flying on a monthly basis. For example, a man has orders to duty involving flying from 1 Nov 1955 to 30 Nov 1955. He completes a five-hour flight on 1 November. If he departs on TAD on 2 November for 3 months, would he be entitled to flight pay for the entire month of November? If this man went on 10 days' leave on 2 November instead of TAD, would he be entitled to flight pay for the full month?—M. B. M., PN1, U.S.N.

• *The answer to both of your questions, as you present them, would be "yes." According to the "Navy Comptroller Manual," Vol. 4, aviation pay accrues to a member only when he has met all of the following conditions: is in receipt of orders to duty involving flying issued by competent authority; reports for and enters upon such duty; and performs the minimum requirements of actual flying. Your man fits all these requirements.*—ED.

Training Carrier Duty

SIR: I am writing to settle an argument about the status of the training carrier—currently USS *Saipan* (CVL-48)—at Pensacola, Fla. Is service aboard such a ship considered sea duty? If not, when was the status changed—R. D. W., AB1, USN.

• *Service in* Saipan *is classified as preferred sea duty. The ship is part of the Continental Commissioned Vessel Program, assigned to the Chief of Naval Air Training for the instruction of Naval Air Cadets. A tour of sea duty in this carrier is three years.*—ED.

Armed Forces Radio, TV Service

SIR: I am very much interested in the Armed Forces Radio and Television Service. Can you tell me what it is, how I could get into it and what the qualifications are for such duty?—A. R. SN, USN.

• *The Armed Forces Radio and Television Service is a joint Army-Navy-Air Force activity under the Office of Armed Forces Information and Education, Department of Defense. Personnel assigned to this duty by the Navy are eligible for and have requested shore duty, and are specially qualified in the field of radio as announcer, engineer or technician.*—ED.

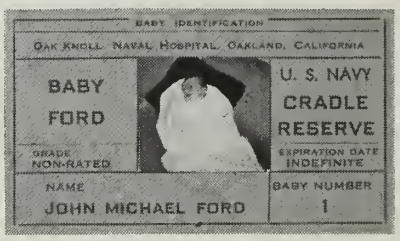
Important Announcements from Navy Families

SIR: I enjoyed seeing the type of announcement used by another Navyman to let the world know that he had a new recruit in the family and thought you might be interested in the style we used when we recruited a future Wave into our family.—W. Tracy Riley, SK2, U.S.N.

• *Thanks for thinking of* ALL HANDS *and our best to the future Wave. Here's hoping that all your troubles are little ones.*—ED.

SIR: Recently in "Taffrail Talk" you included a novel enlistment contract used for the announcement of a baby. We liked it very much and thought that you might enjoy a similar effort my wife and I used to announce the arrival of our son.

Since the Navy doesn't issue I. D. cards to infants, we felt badly about our son being the only member of the family without official identification,



so we made up a special I. D. card to send to our friends in lieu of the more conventional announcements. The enclosed copy is for your magazine.—J. L. F., AC2, USN.

• *We appreciated the I. D. card announcement (see above) and will share it with our readers. Does any other proud parent have a novel, naval way of letting the family and friends know he has welcomed a new "boot" into the family? If so, let* ALL HANDS *know and we'll then pass the idea on.*—ED.

NOW HEAR THIS!

Light the smoking lamp — we're passing out cigars in honor of a new recruit

CARLA JEAN RILEY

who arrived at our base aboard the USS Stork at 0448 hours today (19 January, 1956).

Place of Enlistment: China Lake, Calif.

Term of Enlistment: Life.

Height: ..... 20½ inches

Weight: .... 7 lbs. 12 ozs.

Color of Eyes: Blue

Recruiting Officer: Wm. Tracy Riley

Supply Officer: Barbara Jean Riley

Medical Examiner: Sean M. Betts, M.D.

Stand by to get out wash gear and all hands turn to and man the dressing station as Wave Riley arrived in undress uniform.

Inspection Daily at 305A Princeton, N.O.T.S., China Lake, California, where according to all reports the new recruit is living the Life of Riley — (no duty, free chow and plenty of sack time.)

Firing 155s from LSTs?

SIR: I am certain that 155mm guns were fired from the deck of USS *LST 474* during the period I served aboard her, April 1944 to February 1946. However, I can get none of my present-day shipmates to believe that this was ever done, or that it could possibly be done.

Will you please verify that during World War II, 155s were fired from the decks of LSTs?—H. E. P., EM2, USNR.

• *We forwarded your letter to the Bureau of Ordnance to determine whether or not 155mm guns were used by LSTs during WW II. While their records show no such use of 155s, unofficial information is that a 155mm howitzer (not a gun) was mounted on a destroyer for high-angle trajectory bombardment during an indirect firing mission against forces located on the opposite side of a mountain range. Reduced charges were used with the howitzer so mounted.*

From this it might be deduced that a mobile or deck-mounted 155mm howitzer could have been used as safely from the broad base and more stable platform of an LST deck. But remember, this is merely a deduction, not a fact.

Perhaps some of our readers will remember specific instances of LSTs using 155s and will send us the facts.—ED.

FUNNY BUSINESS—USS Zelima (AF 49) displays signs for USS Boxer (CVA 21) during replenishing at sea. Boxer remained at sea after loading stores.

Hungry Watchstander

SIR: Is a man on commuted rations entitled to a meal when he stands the midwatch from, for example, 2345 until 0645?

A watchstander who eats at the general mess, instead of on commuted rations, is entitled to three meals a day, with his mid rations made up from chow served during the day. But a man on commuted rations eats at home and brings his "brown bag" when he has the watch.

Must he also do this on the midwatch, or is there some way he can draw "mid rates" from the general mess?—B. E. G., RM1, USN.

• *Since commuted rations are paid to enlisted personnel permitted to mess separately, although attached to a station which maintains a general mess, you are not allowed to receive rations in kind from the general mess. However, if you want to do away with brown-bagging, you might ask for permission to buy meals at the general mess.*—ED.

Leave in Foreign Country

SIR: My family's home is in Bordeaux, France, and I intend to take a month's leave to go there this summer. What papers must I have and when will my leave officially start—when I leave the U.S. or when I land in France?—M. H. C., RM2, U.S.N.

• *You should submit an official request via your commanding officer to the Chief of Naval Personnel (Attn: Pers B21c) for permission to visit France on leave in accordance with Art. C-11107, "BuPers Manual."*

You will need a passport. Passport information is contained in Art. B-2110 of BuPers Manual. *Since travel time is not allowed, your leave will begin and expire at your regular duty station*—ED.

...how to send ALL HANDS to the folks at home

Superintendent of Documents
Government Printing Office
Washington 25, D.C.

ENCLOSED find $2.25 for a subscription to ALL HANDS magazine, the Bureau of Naval Personnel Information Bulletin, to be mailed to the following address for one year

NAME.....

ADDRESS.....

.....

(For prompt filling of orders, please mail this blank and remittance direct to the Government Printing Office. Make checks or money orders payable to the Superintendent of Documents.)

Records Pile Up on Nation's Highways

It was 0230 on a recent Monday. The highway stretched out ribbon-like in front of the car. Three sailors, two asleep and the other drowsy, were in the car. They were headed back to Norfolk after a long weekend in New York—a weekend which they termed, "terrific." None of the three had wanted to waste any of their liberty on such non-essentials as sleep. As a result they were a tired bunch of men now that they were nearing their destination.

The driver of the car, the drowsy one, was averaging 70 miles an hour in an attempt to get back to the ship and grab a few hours' sleep before muster in the morning. Suddenly there were three men asleep. A brief second later there was a screeching of tires, a crash, the sound of tinkling glass and a few moans.

That morning a destroyer sailed for the Mediterranean, short-handed.

A grand total of 360 Navymen met death under similar circumstances last year, and in a majority of the cases their final resting place should be marked with the words, "Give me liberty and death," for they all did pretty nearly the same wrong things. They tried to stretch a weekend past the breaking point, drive farther than human endurance can stand, and they were just plain careless. As a result they have ended up as statistics in an upcoming Bureau of Medicine and Surgery booklet.

While statistics are generally dull reading, there is no better way to get the facts concerning the carnage being enacted upon the highways of the U. S. than through those same dull statistics. They show that Navymen have been making a dent in over-all national figures. During 1955, for example, there were approximately 9000 Navymen injured badly enough to require hospitalization as a result of accidents involving vehicles. That was in addition to the 360 killed.

What that figure of 9000 injured boils down to is the fact that a destroyer would expect to lose at least five men if the ship lived up to the percentage established throughout the Navy last year. Larger ships and stations would lose greater numbers, averaging about 1 injured for every 70 men.

There are few men in the Navy who can't claim friendship or a speaking acquaintance with at least that number of men, so look around and wonder how many of your friends are slated to end up in the hospital this year unless you and the others like you begin to tackle the problem of auto accidents. You might even be the one in 70 at your outfit.

Navymen can and do drive safely quite a bit of the time as the figures bear out. Accidents are few and far between on station or during duty hours and there is no reason that the same careful thought and procedures practiced on the base can't be carried over to the highways.

Official drivers at NAS Jacksonville, Fla., serve as a good example of why driving on the base is safer than on the highways. The officials down that way have realized that with the many new and modern power features being built into automobiles it is getting easier and easier to drive a car; however, they have made it harder to get a Navy driver's license, through a series of stiff tests.

At Jacksonville they figure that only one out of three applicants passes on his first try. Following an interview and a written test the potential driver gets a psycho-physical test which includes tests for vision, depth perception, color blindness and reactions under certain conditions.

After the applicant has passed all that, he comes to a skill test which determines his knowledge under certain driving situations. Under the watchful eye of one of the Driver Testing and Training experts, the man working for a driver's permit must run through a veritable obstacle course, making sure that he doesn't hit any of the flags placed along a specific route while demonstrating his ability to stop smoothly

Navy Drive Pushes Safety Program for Navy Drivers

During 1955 there was a total of 38,300 fatalities in the whole United States due to vehicle accidents. This compared with the 360 deaths recorded by the Navy durthe same period.

The Navy's continuing traffic safety program is being carried out at naval activities at home and abroad, and a safety program for off-duty personnel has been organized throughout the Navy to help prevent accidents arising out of the operation of privately-owned motor vehicles.

Sparking the Navy's efforts to keep down the accident rate is a directive by the Secretary of the Navy establishing a motor vehicle accident prevention program under the joint responsibility of the Chief of Naval Personnel and the Commandant of the Marine Corps.

The over-all traffic program coordinates the many safe driving projects already in effect on a local basis, and provides a method of making available to all commands the safe driving procedures that have already been found successful at individual activities.

District commandants, Fleet and type commanders are responsible for the effective operation of training under their commands. Additional information on the Navy Traffic Safety Program is outlined in BuPers Inst. 5101.2.

Commanding officers have been requested to include in their training programs a provision for instruction in safe driving directed toward developing proper driving habits. To assist in this instruction the pamphlets *Safety in Driving* (NavPers 10888) and *Safety in Driving Charts* (NavPers 70131) have been distributed.

In addition, motion pictures showing accidents, traffic violations and safe driving practices are being used for instruction.

in a given distance and to park in a limited space.

The last phase of the examination is a five-mile road test with an instructor watching every move. Under actual driving conditions the driver is graded for general road knowledge, driving habits, reflexes and the many other factors that make up a good driver.

The one in three who passes has a right to feel proud; and the other two are given another opportunity after attending a special training class. A decreasing accident rate aboard the air station is proof that the tough testing pays off and should carry over to off-duty driving, but yet the figures and percentages haven't shown any noticeable drop in recent years.

One thing the numbers and percentages can't show is the great amount of suffering that goes hand in hand with all automobile accidents, not only to those in the accidents but also to families concerned. Saying that 360 men were killed last year doesn't begin to get across the grief felt by the mothers, fathers, wives, children and other members of the immediate family. Statistics can't show how the loved ones felt as they visited the 9000 injured and saw the broken bodies of their husbands or sons.

Many of those 9000 are still in the hospital and may remain there for the rest of their lives. Others have gone home, discharged from the Navy because they weren't physically fit for duty. The lucky ones, whose injuries weren't permanent, have gone back to duty and now they are a little more careful when they drive. They plan trips, to insure that they don't have to drive too far at any one time. They take into consideration the condition of the roads. They allow leeway at both ends of the trip to insure that they have sufficient time for the trip without being forced to resort to speed to get them back.

All the planning in the world isn't a promise that you'll get off the highways alive in a power-conscious era, but it certainly betters the odds in your favor. A combination of common sense and proper planning will do even more. Add in a lot of respect for the two-ton monsters that we call automobiles and you begin to get a safe driver.

Calling an automobile a monster

NAVYMEN SET good records driving on station and on duty. Same care should be carried over to highways.

isn't really correct, for without a driver an automobile is a harmless hunk of metal, glass, rubber and cloth. But, when you put someone in the driver's seat and start the automobile moving you have a death-dealing machine that would make the fire-breathing dragons of old mere pale sissies in comparison. What the monster does, whether it is tame or wild depends on the driver.

In recent years it seems as though a great many drivers on the roads have unleashed the monster to the extent that one school of thought has come up with what seems to be the best theory of driving. It's a method called "Defensive Driving."

Before you can qualify as a defensive driver you have to meet certain standards and accept a pattern of thought. You must utilize safe driving practices at all times and assume that everyone else on the roads is a stark raving maniac, doing his utmost to cause you to have an accident. When you have those two prerequisites down pat you:

- Expect the other driver to pull out from the curb unexpectedly and to bulldoze his way into the traffic.
- Expect him to violate the right of way, not to come to a full stop at intersections and to nudge his way out onto the highway from smaller roads.
- Expect him to drive too fast for road conditions and stop suddenly for no apparent reason, without signaling.
- Expect him to take chances on curves and hills and in passing.
- Expect him to make turns from the wrong lane or to change lanes suddenly without a signal.
- Expect him to weave in and out of traffic.
- Expect him to neglect to dim his lights.
- Expect him to cut in sharply after passing.
- Expect him to drive in the center of the road, perhaps forcing you to hit the ditch.

The list could go on and on, giving all the worst driving habits that a man can learn in a lifetime. When, and if, you can accept the fact that everyone else drives in that manner, you will find that you will begin to drive in a manner that will protect you and your family from such people. You will, as a matter of course, do your utmost to insure that you steer clear and are on guard against the other people on the roads and will become a safe driver. —Bob Ohl, JOC, USN.

CHARTER BUS SERVICE helps reduce possibility of liberty traffic casualties by driving pleasure-seeking Navymen direct from ship to various desired cities.

DO YOU KNOW THESE

CHECK YOURSELF

REST BEFORE o long trip. Refuse to drive when you ore ill or fotigued.

AVOID ALCOHOLIC BEVERAGES. Drink strong caffee or teo ta help stay alert.

PREVENT CARBON MONOXIDE poisoning by checking your exhoust system.

STOP AND REST!—Get out ond walk around Pull off rood for a nop, if necessory.

CHECK YOUR VEHICLE

KNOW YOUR vehicle's history ond keep a record of lubricotion and repoirs.

INSPECT CHASSIS for damoged springs, foulty shock obsorbers, loose nuts, etc.

SEARCH FOR LEAKS of oil, water, gosaline. Inspect muffler far holes.

EXAMINE TIRES for uneven weor, domoge and improper oir pressure. Check spore.

BE SURE you have enaugh oil, water, gosoline, ontifreeze ond broke fluid.

CHECK ROAD AND WEATHER conditions thot exist on your plonned route.

ACCESSORIES—Try lights, horn, windshield wipers, heoter ond defroster. Adjust reorview mirrors. Check tools.

KNOW YOUR ROUTE

GOOD ROAD MAPS will help you to fomiliorize yourself with turns ond crossings, ploces to stop and type of roods.

FARM AREAS—Watch out for form onimols, crossings ond ogriculturol vehicles.

PLAINS AND DESERTS—Monotonous long stretches of rood moy lull you to sleep or tempt you to speed. Check your supply of gos, water and oil.

INDUSTRIAL AREAS—Congested troffic will slow you down. Adopt defensive driving and forget "hurry."

RESIDENTIAL AND SCHOOL AREAS—Be alert for children ploying, old folks, shoppers ond pets. Obey speed limits. DON'T PASS A STOPPED SCHOOL BUS from either direction!

NIGHT DRIVING

GET PLENTY OF REST before o long trip.

DRIVE AT LOWER SPEEDS thon in doytime.

AVOID LOOKING DIRECTLY ot opproaching heodlights ond use right-hond edge of rood os your guide.

DEPRESS HEADLIGHTS when meeting another vehicle ond when following onother cor.

KEEP HEADLIGHTS ADJUSTED and cleon.

KEEP WINDSHIELD CLEAN for better vision.

CHECK BATTERY, lights, wiring ond floshlight.

PRACTICE COURTESY!

ENGINE AS A BRAKE GOING DOWNHILL

Alwoys drive down o hill with vehicle in geor. Broke gently to reduce speed, if necessory.

LONGER LIFE FOR

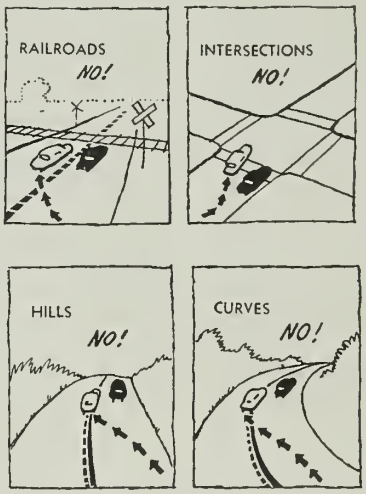
LO

THE NAVYMAN should find out ane at home on liberty or in o new comm o foreign lond. Core ond courtesy

SPECIFIC LAWS were mode to prot tions. Be olert, toke time ond obser

OVERTAKING AND PASSING

USE CARE AND COURTESY. Don't cut bock in line until you con see the cor you've possed in your interior rearview mirror.



SIGNAL FO

BEFORE you st lones, let other your intentions

PARK

SET BRAKES, LE set front wheels lock cor when le

STANDARD

DIAMOND SHAPED
WARNING OF HAZARD

OCTAGONAL SHAPED
STOP!

Eight-sided *STOP* sign means: bring your vehicle to a complete stop.

TRIAN

RECTANGULAR SHAP

Crossed

STANDARD SIGNAL LIGHTS

Approach with reduced speed. Come to FULL STOP when required.

SOME TYPICAL INTERNA

Prepared by ALL HANDS Magazine

ULES OF THE ROAD'?

VEHICLE AND YOU

WS

ocal traffic regulations when he drives when he drives across the country or in al.

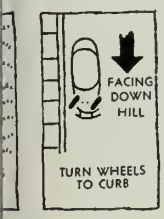
d property under specific local condi- ts of others.

S AND TURNS

wn, turn or change d pedestrians know r signal.

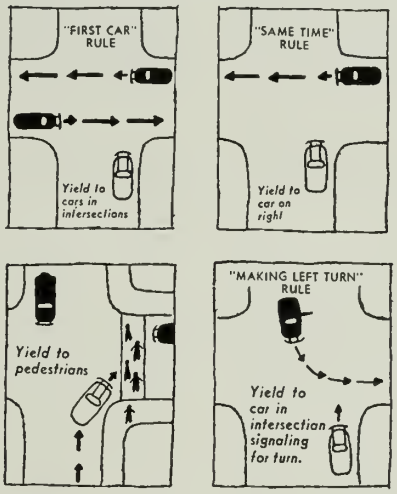
HILLS

LE IN GEAR and shown. Always ended anywhere.



RIGHT OF WAY AT INTERSECTIONS

WHEN IN DOUBT, *yield* to the other car. Be courteous. Keep vehicle under control. USE CARE AND COURTESY.



GNS U. S. A.

HAPED

NG

OAD

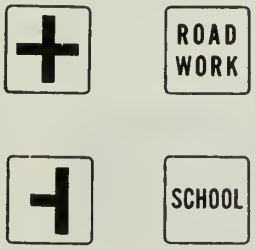
t crossing.

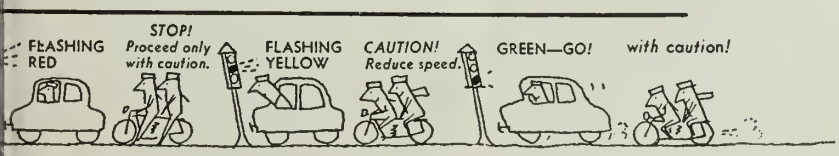
ULATION OF TRAFFIC

ROUND SHAPED
RAILROAD CROSSING

Round sign placed at some distance from the railroad crossing.

SQUARE SHAPED
CAUTION OR INFORMATION





TRAFFIC SIGNS—EUROPE

HAZARDOUS ROAD CONDITIONS

HEAVY RAIN—Keep lower beam headlights and taillights on. Drive slowly!

SLEET—If sleet accumulates too fast for defroster, pull over and don't drive—take "five."

FOG—Stay off the road unless trip is absolutely necessary . . . then CREEP!

Drive with LOWBEAM headlights.

Avoid sudden stops to prevent rear-end collisions.

SNOW AND ICE—Keep speed down.

Keep car pulling steadily with no sudden changes of direction or speed.

Follow other cars at longer distances.

Make no sudden use of brake.

Stay in gear to maintain control.

Steer in the same direction that the rear end is skidding.

Avoid oversteering. Keep both hands on wheel.

Keep windshield clean.

Start slowly and in higher gear.

Take it easy, even *with* chains.

WET LEAVES, OIL, DEEP BUMPS, MUD and LOOSE SAND can be treacherous! Slow down!

IF YOU RUN ONTO A SOFT SHOULDER

NEVER try to get back on the pavement at high speeds.

DON'T slam on the brakes.

DRIVE STRAIGHT AHEAD and slow your vehicle down *gradually*.

COME TO A STOP or slow way down.

DRIVE back onto pavement *slowly* and at a *sharp angle*.

IF A TIRE BLOWS OUT

KEEP OFF the brake and gas pedals.

STEERING IS THE IMPORTANT THING. Grip the wheel hard to keep the car on as straight a path as possible.

APPLY BRAKES GENTLY and slowly, keeping the car in gear until you stop.

CROSSING TROLLEY CAR TRACKS

ALWAYS drive off the tracks or straddle one rail. If you must cross, bring your car to a slow speed and cross *AT A SHARP ANGLE*.

BE SURE TO CHECK behind you and give proper signal for turn you will make.

IN CASE OF ACCIDENT

STOP immediately . . . and, if needed, RENDER FIRST AID and get medical help.

CALL POLICE (civilian or military) and notify your command.

PREVENT OTHER COLLISIONS by directing traffic, placing flares, clearing road.

IDENTIFY YOURSELF but don't sign anything.

MAKE REPORT to proper authorities and insurance company.

The Story Behind the Statistics in Auto Accidents

AUTOMOBILE ACCIDENTS and their results seldom touch you unless you or a close member of your family happens to be involved. As a result, a great number of people seem to adopt the attitude, "Well, it couldn't happen to me." That theory is all wrong as it could happen to anyone and the results may not be pleasant, as Ensign E. J. Guazzo, USN, found out recently.

Ensign Guazzo wasn't involved in an automobile accident but he found that they can affect anyone at anytime. He had been injured during a physical training class while in Pre-Flight school at Pensacola, Fla., and ended up in a ward at the hospital which had many accident cases receiving treatment. After a couple of weeks in the hospital ENS Guazzo wrote a short article, extracts of which appear below.

Navy Safe Driving Label Button

"If a disease were decimating our population and permanently disfiguring thousands of people the way the automobile does, we would be up in arms demanding that something be done. We would be contributing millions of dollars, we would support campaigns to make the public conscious of the menace and thousands of volunters would work in every community to help those who had been afflicted and to prevent the the pestilence from reaching their loved ones.

"Death and disfiguration by automobile is a unique disease. We all have it, those of us who drive. We direct it with our hands, and we speed it up or stop it with our feet. The sole way to prevent it from attacking others is with our brain. To remind our brain of its obligations, countless medicines have been prescribed: the traffic patrolman, road signs, stop lights, speedometers, cross walks, etc. However, the most effective preventive medicine we have is most difficult to prescribe and impossible to administer: *common sense and*

NAVEXOS-2465 (1-51)

THIS CERTIFIES THAT

HAS EARNED THE YEAR

U. S. NAVY SAFE DRIVING AWARD

THIS CERTIFICATE IS GIVEN IN RECOGNITION OF AN OUTSTANDING ACHIEVEMENT IN SAFE DRIVING

Date Earned GPO 16—42301-8 Commanding Officer

courtesy. They are both synonymous with safety.

"There are seldom eyewitnesses to a bad automobile accident. The participants are usually too dazed or too dead to remember. There are, though, many among us who are witnesses to the aftermath—I am a prime witness.

"I have seen the results, not in the neighborhood, nor on the highway, nor even in the periodicals. These are too easily forgotten. You do not live with them—I do, right here in the hospital.

"First I'd like you to meet the patient in the next cot. He is a Navyman. He had duty on a sea-going tug before he had his auto accident some months ago. He now has a steel rod running through his left leg because he has a comminuted fracture. 'Comminuted' is a medical term which mean pulverized. They saved his leg, but not his sea legs. You see, they are one and a half inches different.

"And here is another hospital mate. He doesn't look seriously injured. Just has a cast on his forearm, but did you notice the way his hand is extended upwards? The cast holds it that way so that

tendons in his arm will knit back together. He severed the tendons leading to his right hand. He is assured he will have the use of his fingers, but they are not sure of his thumb. Actually he feels quite fortunate. His car was completely demolished, but have you ever tried to lift, hold, or write with a helpless hand?

"Let's visit another ward. That seaman over there—what does he have inserted in his head, you ask? They are called Crutchfield tongs. They look just like a pair of small ice tongs. Two holes are drilled into the skull and the points of the tongs are inserted into the holes. From the handle of the tongs, weights are suspended via a pulley. This is done so that the vertebrae will be pulled slowly back into place. The car in which he was riding smashed into an embankment. He broke his neck. Would you believe that he was, six months ago, a very fine athlete? He was a middleweight boxer. The muscles in his arms are now withering. Atrophy, they call it. He doesn't have the strength to light a cigarette lighter. The miracle is that he lived.

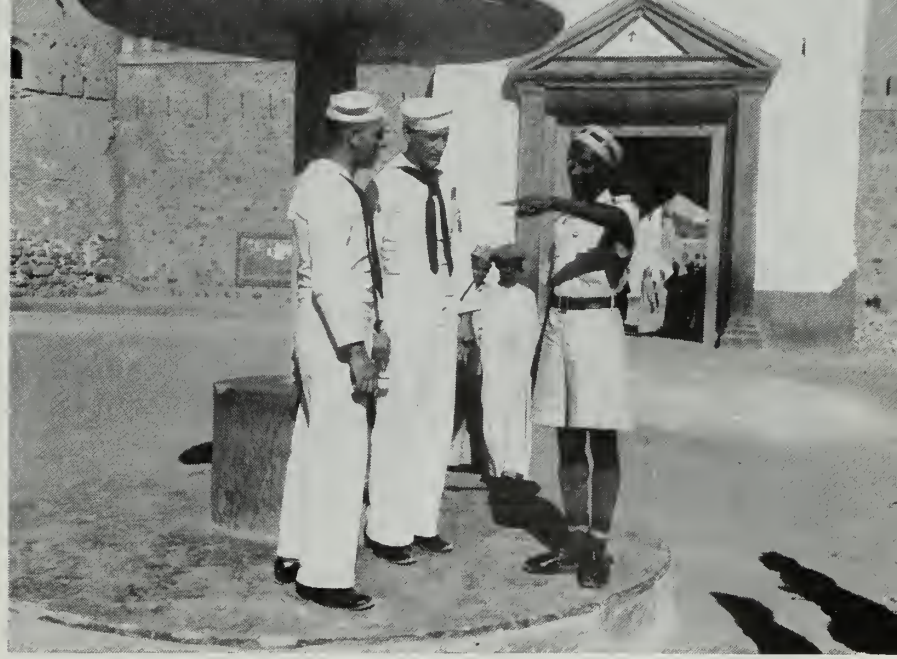
"The next person that I'd like you to see, I have never met. We can't see him because he has been on the critical list ever since they brought him into the hospital six nights ago. He swerved to miss a car and ran into a bridge. He is a sailor, 19 years old. His brain is seriously injured.

A corpsman is stationed at his bedside 24 hours a day. He is covered with ice packs, but his temperature has risen until it is now 106 degrees and his blood pressure has progressively dropped.

"Just outside his door are his parents, his mother sitting, a vacant expression in her eyes, his father aimlessly pacing the corridor. Nothing like this has ever happened to them. They don't know what to do or what to think. They are helpless, and so are the doctors.

"There are others but this is only one hospital. Multiply it by thousands of hospitals. And one more thing—those you have seen here have been the living. Remember there were others who did not make it to the hospital door.

"We could go on, from bed to bed, from ward to ward, and you could see the aftermath. How can I ever forget? I lived with them. Make sure that you never have to."

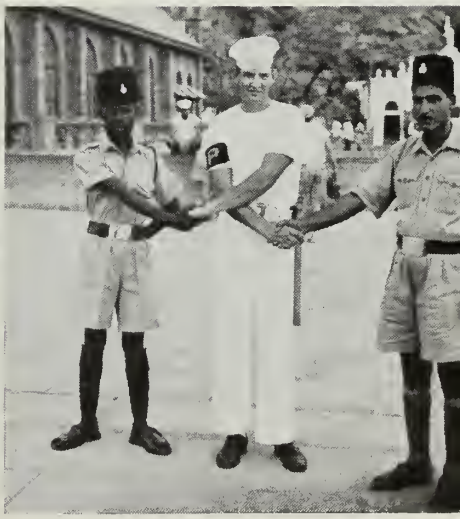


Navymen's Friend in Every Port

No matter how strange the attire or distant the country, Navymen have found that the policeman's uniform the world over points toward friendship and assistance when ashore in foreign ports.

When the excitement and confusion of a busy city of strange ways and customs confront a sailor, he knows the uniformed friend on the street will help him find his way and to locate what he wants to see. Looking for the pyramids of Egypt (or Mexico)? The way to the Taj Mahal? Or the Parthenon? Ask the nearest policeman.

Top Left: French gendarmes in Algiers dismount from their bikes to help two whitehats. *Top Right:* Policeman passes the word in his native fashion at intersection in Muscat, Oman. *Right:* Midshipmen stop to ask directions and have a friendly chat with English bobbies while sightseeing in the heart of London. *Lower Left:* In Barcelona, Spain, sailors on liberty get their course set for good times by local policeman. *Lower Center:* Outfit of police officer in Colombo, Ceylon, attracts the attention of Navymen on liberty who stop to exchange a few words of good will. *Lower Right:* Working together, a Navyman on S.P. duty and police of Aden exchange grip of friendship.



TODAY'S NAVY

USS BOSTON (CAG 1), Navy's first guided missile cruiser, is photographed by Navy photog as she cuts through waters off Guantanamo Bay, Cuba.

Midshipman Cruises

Cities in Denmark, Sweden, England and Germany will be included among the ports of call for more than 3000 midshipmen from the Naval Academy and NROTC units participating in the 1956 summer training cruise.

The first midshipman cruise, designated as "Cruise Able," starts 2 June at Annapolis with members of the first (senior) and third (sophomore) classes participating.

Approximately 1825 Naval Academy midshipmen and 1190 NROTC midshipmen will cruise together in a Practice Cruising Squadron consisting of USS *Iowa* (BB 61) and *New Jersey* (BB 62), *Macon* (CA 132) and *Des Moines* (CA 134) and 16 destroyers. Service Force ships USS *Caloosahatchee* (AO 98), *Truckee* (AO 147) and *Hyades* (AF 28) will support the squadron.

Practical shipboard training will culminate in final gunnery exercises and other professional training which will include submarine operational training, off Guantanamo Bay, Cuba.

Included in the cruise activities will be a period of training with a modern attack carrier, with its jet air group, and a period of anti-submarine warfare training with a hunter-killer aircraft carrier task group.

Plans for two other major midshipmen cruises, "Baker" and "Charlie" are yet to be announced. Plans for aviation and amphibious training for midshipmen of the second class are also underway.

YESTERDAY'S NAVY

On 4 May 1917 the first U. S. destroyers arrived at Queenstown, Ireland, to join in World War I anti-submarine operations. On 4 May 1923 the dirigible *Shenandoah* was launched at Lakehurst, N. J. On 6 May 1945, one day before V-E Day, USS *Atherton* (DE 169), *Farquhar* (DE 139) and *Moberly* (PF 63) accounted for the last submarines sunk by American ships in Atlantic during WW II. On 13 May 1862 Union naval forces occupied Natchez, Miss. Marine Corps aviation was born 22 May 1912, when 1st LT Alfred A. Cunningham was ordered to aviation camp at Annapolis, Md.

Guided Missile Submarines

Three recent changes in the submarine construction program will take full advantage of new technological developments.

The guided missile submarine (SSG) in the fiscal 1956 shipbuilding program will be constructed as a nuclear-powered guided missile submarine (SSGN). The two conventional attack submarines USS *Grayback* (SS 574) and *Growler* (SS 577) will be completed as guided missile submarines.

Construction of the SSGN has been assigned to the Mare Island Naval Shipyard and will begin later this year. The nuclear power plant will include a water-cooled reactor similar to that of USS *Skate* (SSN 578) now under construction.

Grayback and *Growler* and the SSGN will receive facilities for launching the surface-to-surface missile *Regulus*. *Grayback* is now nearing completion and *Growler* is under construction.

Record for Sub Killers

A record of 10,000 aircraft flight hours for the calendar year 1955 is claimed by Air Anti-Submarine Squadron 21. The Grumman S2F "Sub Killer" that crossed the 10,000th hour marker (and chalked up another record for 20,000 pilot hours) was piloted by the squadron skipper, CDR A. H. Wellman, USN, and the co-pilot was LCDR Donald W. Monson, USN.

The mark is believed by Squadron 21 to be a record number of hours for anti-submarine squadrons in the Pacific Fleet Air Force. With the two pilots in each of the twin-engined planes averaging 500 hours each, it is anticipated the 20,000 pilot-hours will top all other carrier-type squadrons in total pilot flight time this year.

More than 2400 accident-free carrier landings were made. VS-21 was able to qualify all its S2F pilots in both day and night carrier landings while totaling the record number of flight hours. The squadron is now in the Far East aboard USS *Princeton* (CVS 37).

Seventh Fleet Band

It's pretty well known that one of the missions of the Seventh Fleet, as it stands on guard in the Far East, is to serve as an instrument of international good will. Band Number 129, attached to the Flag Allowance of Commander 7th Fleet, is busy making a significant contribution to this mission.

During two recent public appearances at the municipal auditorium and outdoor band shell in Taipei, the band played to standing room only and tree-sitting audiences. The music was received so well that it brought cordial invitations from local authorities for repeat performances. Elsewhere in Taiwan the band has played at Kaohsiung, Tainan and Keelung. It has proved to be a bridge to friendship not only in Taiwan, but also in the Philippines, at Hong Kong, Okinawa, and in various ports in Japan.

The band is proud of its ability to play any type of music it may be called upon to provide. This includes music for honors and colors (including the national anthems of all friendly countries in the Far East), parties, dancing, and formal concerts. Members attribute their versatility to the training they received from the Navy School of Music at Washington, D. C. and to the interest, talent and team spirit of each individual musician.

The full band consists of 16 pieces plus the leader, at present Daniel W. Richardson, MU1. The combo numbers six pieces—the sax clarinet, trumpet, trombone, string bass, piano, and drums.

Although Oriental audiences respond enthusiastically to all types of music, they seem to be especially delighted when the combo swings into such Dixieland Jazz numbers as, "When the Saints Go Marching In." And the listening reaction is typical when these numbers are played — hands clapping, bodies swaying, and feet tapping in time with the catchy rhythm.

Native appreciation is even more fully demonstrated on occasions when, after a playing engagement, the musicians are invited singly and in groups to local homes.

By frequent appearances in Taiwan and at all the flagship's ports-of-call, the Seventh Fleet band has become one of the best musical good will ambassadors in the Far East.

AT RECEPTION for *USS Bennington*, crew members enjoy native dance.

From Valencia to Manila, Sailors Win Praise

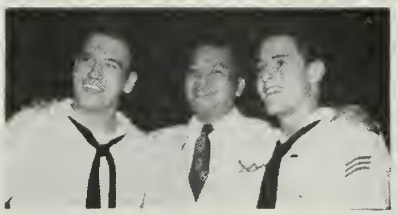
Navymen, in the role of goodwill ambassadors to U. S. allies everywhere, have scored two more hits in such faraway places as Spain and the Philippines.

In Spain, four bluejackets from the Sixth Fleet flagship, USS *Newport News* (CA 148), rescued eight persons from a burning building—and received miniature city flags from the Mayor of Valencia in recognition of their "intrepid conduct."

Hearing cries from the burning building while on liberty in Valencia, the sailors pushed their way into the flames to carry out a woman and a five-year-old boy. A second woman and five children were also led to safety. The four men—Lawrence J. Warns, ET3, USN; Albert Davidson, SA, USN; Bryant A. Hopkins, RD3, USN; and Miles W. Fredrickson, SA, USN—then returned to smoke-filled building to search for other victims.

In Manila, P. I., crewmen of the attack carrier USS *Bennington* (CVA 20) literally gave their blood for the Filipinos—856 pints in three days—and were rewarded with a reception given by President Ramon Magsayay in Malacanan Park, near the presidential palace. At the reception Navymen had an opportunity to witness—and participate in—the Filipino dances. President Magsaysay greeted the men from *Bennington* and talked to many of them while refreshments were being served.

The blood donations were made under a donor program sponsored by the Philippine National Red Cross.



PRESIDENT MAGSAYSAY chats with *USS Bennington* sailors at party.

NAVYMEN RECEIVE recognition for heroism in Spain. *(l. to r.)* L. J. Warns, A. Davidson, Mayor Azcaerrya, B. A. Hopkins, and M. W. Fredrickson.

NAVY MEN in Armed Forces Olympic Basketball Trials: (back) B. Manning, SD3; G. Wright, SN; D. Weishnell, SN; Coach, CAPT F. Frates, DC; C. Lively, SN; J. Dodd, MA; H. Donald, SN; (front) ENS K. McCalley; S. Kernan, SN; M. Bearman, SN; J. Sherry, SA; J. Young, SN; LTJG R. Hale; LTG L.B. Hoss: J. Stanley, SN.

Basketball Roundup

A last second shot that rimmed the basket and then fell out, kept the Navy team out of the winner's circle in the three-night Armed Forces Olympic Basketball Trials. The games were held March 22-24 at the Louisville, Ky., Armory.

Having already lost to the Marine and Army fives, the Navy quintet was bound and determined to upset everybody's apple cart in their final game but Dame Fortune was looking the other way when Mighty Jim Young fired the last shot. Trailing 76-75 going into the last seconds of the contest, Navy gambled on making the last shot count . . . and lost.

The Navy squad's 14 players were selected from the teams playing in the Eastern and Western All-Navy tournaments. Their attempt at a come-back made the final night's games one of the most exciting of the tourney.

Air Force was declared winner of the Trials on the Olympic point-spread basis. The Airmen scored plus 19 as compared to the runner-up Marines minus 3. Army and Navy were far behind. The Air Force, Marine and Army teams each had identical records of 2-1.

Stan Kernan, SN, USN, of Sub-Group One, was the only Navy player to be selected to the Armed Forces All-Star squad that competed in the American Olympic finals at Kansas City the first week in April. Players selected from the other services were: Marines: Don Lange, Cordell Brown and Jim Bingham. Army: Al Bianchi, Larry Dugan and Clarence Hannon. Air Force: Billy Evans, Gib Ford, Bernie Janicki, Ronald Tomsic, Tom Fuller, Ray Warren, and McCoy Ingraham.

Navy, in its first game of the tournament, was pitted against a tall and fast Army team and came away with a 105-81 defeat. The margin of victory was mainly on the free throw line, where Army converted 39 times out of 41 tries.

What really spelled doom for the hustling Navy team was the last five minutes of the first half and the first five minutes of the second half.

Navy picked up the initial tip-off and took an immediate lead. At the end of the first quarter, Navy led 16-12 and kept that four-point lead until five minutes were left in the half. Then the roof caved in. The Sea-Service five was behind 35-43 at the rest period.

In the first five minutes of the second half, both teams resumed the roles they'd been playing when the rest whistle sounded and Army tapped in 16 points to Navy's six to increase their bulge to 59-41. From there on in, Navy was able to hold its own in the scoring column but never really threatened.

Jack Sherry, SA, USNR, of NTC Bainbridge, Md., played an excellent floor game for the sailors and was high scorer with 16 points, followed closely by Bill Manning, SD3, USN, of VF-91, who had 14 points.

The Marines defeated Navy 109-85 in the second game of the tourney with their star Richie Guerin leading the way with 22 points. But scoring honors for the night went to pint-sized speedster, Stan "Snooky" Kernan who fired in 11 field goals and five charity tosses for 27 points.

It was in the last three minutes of the first half that Navy made its bid. With the clock showing 180 seconds remaining, the score was 53-29 favor of the Marines. The inspired Navy team held the Marines scoreless and chalked up 10 fast points to whittle the margin down to 53-39.

Navy lost its offensive edge during the rest period as the Marines stormed back to outscore the sailors 56-46 during the second half and take the victory.

The Navy-Air Force encounter was a battle of strategy. It was as thrilling and exciting a ball game as had been witnessed throughout the trials. With only seconds remaining, and the Air Force holding a one-point margin, Navy called time out.

Navy needed a basket to win. Jim Young, the sea service's deadly long-range pot shot, was elected to try for the goal. With time back in, Navy stalled until only a few seconds remained and Young fired away. The ball took a nice arc, hit the inside of the rim and rolled around twice and then out. In the ensuing scuffle for the rebound, Navy was called for holding, but it didn't matter any more. The buzzer ending the game sounded and the Air Force was still ahead 76-75. The two charity tosses only were anti-climactic to a terrific struggle by two outstanding teams.

Players who were selected to the Navy All-Star squad that competed in the trials were: John W. Dodd, HA, USNR, NTC Bainbridge; James Young, SN, USN, ServLant; LTJG Roland Halle, USNR, NAS San Diego; Jack Sherry, SA, USNR, NTC Bainbridge; Bill Manning, SD3, USN, VF-91, NAS Atsugi; Don E. Weishnell, SN, USN, NTC San Diego; Michael Bearman, SN, USN, Fas-Ron 5, NAS Oceana, Va.; Stan Kernan, SN, USN, SubGroup One; James Stanley, SN, USN, SuBase Pearl Harbor; Harold Donald, SN, USN, NTC Bainbridge; LTJG Bill Hoss, USNR, NTC Great Lakes; ENS Ken McCalley, USN, USS *Coral Sea*

(CVA 43); Clarence Lively, SN, USN, NTC Great Lakes; and Grover Wright, SN, USN, NAS Norfolk.

These 14 players were selected from the Eastern and Western All-Navy tournaments. Here's how these two tournaments came out:

Western All-Navy

The Hawaii Packers, made up from players attached to ComServ-Pac and ComSubPac, came from behind to win the Western Navy title. Although one of the smallest teams in the tourney, the Packers knocked off the two pre-tourney favorites, the Yokosuka Seahawks 95-88 and the 11th ND All-Stars twice, 78-72 and 95-74 to win the crown.

The only loss suffered by the speedsters from Hawaii came at the hands of the All-Stars when the Packers were trounced 107-74 in the semifinals. But the Hawaiian sailors came back with a convincing 95-74 victory to win the championship.

Packers' forward "Stu" Stuurmans, voted the most valuable player in the tourney, canned 35 points in the final game to lead the victors. Stuurmans was not selected to the Navy All-Stars since he was due for discharge.

The other teams in the Western All-Navy, besides Yokosuka, Hawaii and the 11th ND, were Marianas Mariners, 12th ND All-Stars, and the 13th ND All-Stars.

Eastern All-Navy

The ServLant "Whitehats" Atlantic Fleet title bearers, edged the inspired NTC Bainbridge Commodores 78-68 before a capacity house at McCormick Sports Center for the Eastern All-Navy championship. Jim Young, voted the most valuable player in the tourney, led his teammates to victory with 20 points. Five ServLant players hit in the double figures that night.

It was a tight game for the first half with Bainbridge coming up to knot the score at 26-all with four minutes left. But ServLant's Young scored a 35-footer to put the Whitehats back in the lead and at rest time, ServLant led 33-30.

Teams in the Eastern tournament included, besides ServLant and Bainbridge, NAS Quonset Point, NTC Great Lakes, Philadelphia Naval Base, NAS Jacksonville, Port Lyautey, USNH St. Albans, SRNC-PRNC All-Stars and a quintet from NAS Corpus Christi, Texas.

SIDELINE STRATEGY

One of the nation's top amateur wrestlers, and a former Naval Academy star, is now undergoing intensive training in an effort to capture the only major wrestling title he has not won. Ensign Pete Blair, USN, formerly of the destroyer USS *Shields* (DD 596), and now in training at the Naval Academy is aiming for a shot at a berth on the U S. Olympic wrestling team and a possible Olympic wrestling title.

Last October, Pete participated in the Olympic Sports Show at Madison Square Garden. The show was an exhibition by some of America's greatest athletes and was the kick-off for the 1956 National Olympic Fund Drive.

Pete met an old acquaintance in the 10-minute Olympic style wrestling exhibition when he faced Bill Oberly, Penn State wrestling team captain and 1955 NCAA heavyweight champion. During his plebe days at the Naval Academy, Blair had pinned Oberly four times during his last two years of intercollegiate competition

The Madison Square Garden match was a repeat of past performances as Blair won a one-sided decision over Oberly. During his four years at the Academy, Blair won the Eastern Intercollegiate heavyweight championship twice, came in third during his fourth class (freshman) year and second during his third class (sophomore) year.

He is a two-time winner of the NCAA 191-pound title and also was winner of the Weems Memorial Award and the Fletcher Memorial Award. In his last year at the Naval Academy, Blair was co-holder (with fellow wrestler and football star Joe Gattuso) of the Thompson Trophy.

★ ★ ★

Look for the Atlantic Fleet destroyer Force to field another red hot boxing squad. Although the Destroyers have lost a number of their champions from last year, such as Charley Butler, Gene Toran and Rudy Sawyer, they still appear to have one of the most formidable sock squads in the Fleet today.

A little-known bantamweight who should give the fans a thrill and his opponents six minutes of fury is Ronnie Andrews, SN, USN. Andrews is a smart fighter and packs a wallop in either mitt. Roy Louson, SN, USN, last year's All-Navy heavyweight champion, should be highly regarded by aspirants to his title. He's as rugged as they come and appears to have improved his boxing skill.

Frank Keating, SN, USN, also of the Destroyers, is a comer in the light heavyweight class. Although he's actually a middleweight, he prefers to fight slower light heavy class.

Bob Nichols, the battlin' Boatswain's Mate, Second Class, just missed out for the All-Navy title last year but is itching for another chance. Al Gibbs, FPC, USN, DesLant's boxing mentor, says that this should be Nichols' year.

—Rudy C. Garcia, JOC, USN.

THE BULLETIN BOARD

You Can Check Your Jacket in Enlisted Record Review Room, Bureau of Naval Personnel

The CPO had "made out." His long-awaited orders to attache duty in some desirable foreign country had come through. He was first ordered to Washington, D. C., for processing.

A passport is required. But to get a passport, you must have your original birth certificate.

The chief's was not to be found. The county seat where he was born didn't have the original. They could give him a certified copy, but he needed the original. After checking all the sources he could think of, the CPO decided to play a hunch. He took a short trip from the Washington Receiving Station over to Arlington Annex.

Sure enough, there in his service jacket in BuPers, along with his original enlistment papers, was his original birth certificate. Mrs. Alice Hewitt, who is in charge of the enlisted record review room, arranged for the CPO to obtain the needed document. This was fairly simple since the birth certificate was a personal paper and not an official Navy document.

The above incident actually happened and similar instances are taking place daily in Room 4055 in the Bureau of Naval Personnel. Many Navymen, passing through or making a trip to Washington stop in and review their records at the Bureau.

The door is always open at the Bureau for both officers and enlisted men to check their service records. All you have to do is present your ID card and your jacket will be brought to you. At most, it takes 15 or 20 minutes to find a record.

If you have other questions—the answers to which are not in your jacket—such as, where you stand on the shore duty list, or what's the promotion picture in your rating, the Enlisted Record Review Room won't have the answers, but you'll be directed to other sections of the Bureau that do have the correct information. In addition, if you happen to need a certified copy of some official document in your service jacket, arrangements may be made to provide them.

Many Navymen are hesitant to stop by the Bureau and check their jackets. The feeling which exists among Fleet sailors that the people in BuPers are "too busy" to bother with such requests is a mistaken one.

If you ever get around the Washington area, it might be quite profitable for you to check your jacket. Cases have come up where a man has found an error in his record and has been able to have it corrected. He probably would never have known of the mistake if he hadn't been "brave" enough to visit the Bureau and take the time to personally check his jacket.

The service jacket review has also been profitable to some men who find that they have been overcharged, or possibly charged twice for the same item and that they're entitled to a refund. (Usually, though, the man has an idea about this overcharge in the first place.)

The Enlisted Record Review Room, at present located in Room 4055, will always open its doors to those wishing to check their jackets.

All-Navy Cartoon Contest—
J. F. McNeil, ET1, USN

"For your information, Camden, when the Chief said 'take five,' he didn't mean days!"

Direct Transfer Orders from Overseas Duty Stations Speed Up Estimated Date of Arrival

Enlisted personnel en route from overseas to new duty stations within the continental United States will no longer be required to report to coastal and other intermediate reporting stations for endorsement of their orders.

Commanding officers have been directed to eliminate, as much as possible, the need for individuals to make such stops if no useful purpose is served.

Transferring activities, in computing travel data before the commencement of travel, will attempt to eliminate intermediate stations when the sole purpose of the stop is to obtain a travel request or endorsement.

However, a Navyman in travel status may, if necessary, present himself at any appropriate naval activity for assistance, travel requests, or pay, and it will not be necessary that the issuing command include these stops in the transfer orders.

This change does not prevent the issuing command from including an appropriate intermediate station in the orders when it appears necessary for the traveler to obtain pay, medical treatment or transportation, or if certain non-rated personnel will need additional directions to carry out travel orders properly.

This step will make it possible for the overseas command to compute more accurately the estimated time of arrival, although it is recognized that these estimates may be still further revised upon arrival in the continental United States, based on the MSTS or MATS debarkation endorsement.

Before your departure, you will receive detailed travel instructions and, if necessary, will be shown how to recompute your reporting date at your ultimate destination.

The manner of computing the estimated date of arrival may be included by some commands in the remarks section of the standard transfer order and this entry can be used by you in revising estimates due to transportation delays.

Authorization and details may be found in BuPers Inst. 1326.2.

Qualified EMs Can Earn Wings and Commission as Aviation Officer Candidates

The Navy is inviting applications for the Aviation Officer Candidate program from qualified USN and USNR enlisted personnel on active duty.

Men selected will be ordered to report to the Chief of Naval Air Basic Training, NAS, Pensacola, Fla., for assignment to the Aviation Officer Candidate (AOC) School. Upon successful completion of the first four months, consisting of officer indoctrination and preflight training, they will be appointed as ensign in the Naval Reserve, and will then receive approximately 14 months' flight training leading to the designation of Naval Aviator.

To be eligible, you must:

- Be a male citizen.
- Be at least 19 and under 26 years of age at time of application.
- Have a baccalaureate degree from a college or university and have completed a minimum of 120 semester hours or its equivalent.
- Attain the minimum acceptable grade on the aviation aptitude examination as follows: Aviation Qualification Test, 3; Flight Aptitude Rating, 3.
- Be physically qualified and aeronautically adapted for actual control of aircraft.
- Be strongly motivated to fly, and possess officer-like qualities.
- Agree to and execute the Aviation Officer Candidate Active Duty Contract.
- Have completed two 45-minute indoctrination flights. Flights as a passenger on military, commercial, or private airplanes are not considered as qualifying.

Further details may be obtained from BuPers Inst. 1120.25.

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH IS ON PAGE 13.

1. (b) Admiral A. A. Burke, USN.
2. (c) The U. S. Congress.
3. (a) Navy and Marine Corps Medal.
4. (c) Heroism outside of combat.
5. (a) Nurse Corps.
6. (b) 13 May 1908.

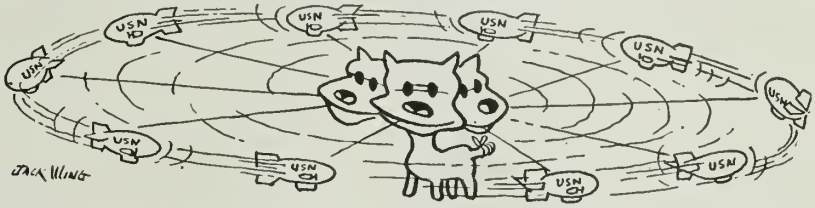
Blimp-Chasing Mascot Earned Flight Time Hard Way

Black Dog is the sort of mascot every Navyman would like to brag about as his very own. There aren't many of his kind left. Unusual in more than one respect, he's a veteran of the flying Navy, chalking up long hours of air time on the decks of Navy blimps.

Black Dog is a notably ugly, cheerful and devoted mongrel who has, claims CPO Henry Aldrich, an AT who wears three service stripes, put in more time on board blimps than Aldrich has. Black Dog is predominantly a mixture of boxer and chow—a fact that spelled disaster to all dogs at NAS Lakehurst for many years. However, he's no threat to them now because, in his fifteenth year, he doesn't have many teeth left. He doesn't have much of a tail either. That was lost when he forgot to duck under a propeller.

Every member of a line-handling crew who has walked a balky gas bag in a high wind will remember stumbling over Black Dog as he dashed wildly between the short lines on each takeoff or landing, no matter what the weather or hour.

His teeth were in fine shape that memorable day when, excitedly chasing a handling line, he caught it just as the blimp became airborne. The pilot had a difficult choice to make some 45 minutes later when a crew member discovered Black Dog still hanging grimly to the line. Should he follow his orders or should he abandon his mission and attempt to get back to Lakehurst before Black Dog finally loosened his grip? Happily, he made the proper decision. One-and-one-half hours after Black Dog and the Blimp took off, Black Dog tumbled safely to the landing pad, shaken, jaw-weary and slightly scratched. He continued to chase landing lines.



LTA men like to tell of how Black Dog, no matter where he might be, or how busy, would respond to the order over the PA system: "Now hear this. Black Dog report to the duty desk. On the double." The fact that he invariably received his rations at this time was immaterial.

At present, he is serving in honorable retirement at Glynco, but he won't be there long. Computed on a human basis, he is now more than 100 years old.

Hospital Corps School at Portsmouth Is Closed

The Hospital Corps School at the U. S. Naval Hospital, Portsmouth, Va., has been disestablished by order of the Secretary of the Navy.

When currently scheduled classes have completed their instruction, the school's Class "A" functions will be shifted to Bainbridge, Md. The Class "B" School, which prepares hospital corpsmen for independent duty at activities where no medical officers are assigned, will be consolidated with the regular training schedule at the Portsmouth hospital.

Specialist courses, such as operating-room techniques, were not a part of the "A" or "B" schools, so are not affected by the change.

Three Enlisted Correspondence Courses Are Now Available

Three new Enlisted Correspondence Courses are now available to all enlisted personnel.

Damage Controlman 3 (NavPers 91543-1) is applicable to DCs, and carries 24 retirement points for Reservists.

Boatswain's Mate 2 (NavPers 91243-1) is applicable to BMs and is evaluated at 18 Reserve retirement points.

Chief Yeoman (N vPers 91416-2) is applicable to YNs and is worth 12 Reserve retirement points.

Enlisted Reservists, who took these courses before they were revised, may now take them again for repeat Reserve retirement credit.

Your Wife May Be a Winner In 'Mrs. U.S. Navy, 1956' Contest

Before you start making firm plans for late summer vacation, better give some thought to the possibilities of an all-expense tour for you and your family to any of the major cities of the United States and to Honolulu. Sound good?

All you have to do is win it. The trip, plus a cash award, is first prize in a contest sponsored by the Fleet Reserve Association to find "Mrs. U. S. Navy, 1956." Additional prizes will be announced by FRA at a later date. BuPers Notice 1700 of 11 Apr 1956 gives details of the contest.

Any Navy married enlisted man on active duty whose intention it is to make the Navy his career may nominate his wife as a contestant. You need not be a member of the Fleet Reserve Association.

Your entry will consist of three parts:

- A recent photograph of you and one of your wife. These may be a family group or individual photos.
- An essay, not to exceed 500 words, in your wife's handwriting, on the subject: "Why I'm proud to be a Navy Wife." There's nothing in the rules to say you can't help her.
- A completed application form, consisting of three parts. (These application forms may be found as an enclosure to BuPers Notice 1700. and may be reproduced locally.) Your application forms will be forwarded via your commanding officer direct to: Fleet Reserve Association, "Mrs. U. S. Navy, 1956" Contest Headquarters, Wilton Hotel, Long Beach, Calif.

The entries must be received not later than 15 Jun 1956.

When they are received at Contest Headquarters, all entries will be separated according to the activity from which submitted. From each command conducting eliminations (see below), five semi-finalists will be selected by a panel of judges composed of Fleet Reserve personnel. These selections will be made by 15 July.

These semi-finalists' entries will then be returned to the command designated to conduct eliminations for selection of a finalist and alternate to represent that command in finals at Long Beach on 15 Sept.

"I forget the punch line."

The finalist and her husband from each screening command will be brought to Contest Headquarters one week in advance of the final judging. While in Long Beach, they will be guests of the contest officials.

Final selection will be made by a panel of enlisted men acting as judges, representing the commands conducting eliminations. Selection of the winner will be based, among other considerations, on her contribution to her husband's career and her ability to adapt herself and family to Navy life.

Decision of the judges will be final and the essays submitted, plus any pictures, letters or other material, will become the property of the Fleet Reserve Association.

You'll find your ship or station included in this list of commands conducting eliminations:

- COMINLANT: for ships and units attached to Mine Force, Atlantic Fleet, including Minecraft Base, Charleston, S. C.
- COMSERVLANT: for ships, units and activities of Commander, Service Force, U. S. Atlantic Fleet, including ships and units of Commander Service Force, Sixth Fleet.
- COMSUBLANT: for ships, units and activities of Submarine Force, Atlantic Fleet including submarine bases.
- COMTRALANT: for Commander Training Command ships and activities, including OpDevFor.
- COM FIFTEEN: for all activities of Commandants, 10th and 15th Naval Districts, including naval missions and attache groups in Central and South America.
- COM FOURTEEN: for all shore activities, Hawaiian area and Pacific Ocean area, together with shore-based naval groups or forces, Far East.
- COM PRNC: for all units or activities not otherwise assigned, including activities of the Severn River Naval Command and Bureaus and offices of the Navy Department.
- DISTRICT COMMANDANTS: for each *continental* Naval District activity and its components, including the Reserve Fleet.
- COMAIRLANT: for all units or ships attached to Air Force, Atlantic Fleet.
- COMPHIBLANT: for all units, ships and installations, Amphibious Force, Atlantic Fleet.
- COMBATFORLANT: for ships attached to Commander Battleships-Cruisers, Atlantic Fleet.
- COMDESLANT: for ships and units attached to Destroyer Force, Atlantic Fleet.
- COMAIRPAC: for all units or ships attached to Air Force, Pacific Fleet.
- COMPHIBPAC: for all units, ships and installations of Amphibious Force, Pacific Fleet.
- COMCRUDESPAC: for all ships attached to Commander Cruisers-Destroyers, Pacific Fleet.
- COMINPAC: for all ships and units attached to Mine Force, Pacific Fleet.
- COMSUBPAC: for all ships, units and activities of Submarine Force, Pacific Fleet, including submarine bases, Pacific area.
- COMTRAPAC: for Commander Training Command, ships and activities, Pacific Fleet.
- COMSERVPAC: for all activities and ships attached to Commander, Service Force, Pacific Fleet.
- CINCNELM: for all shore based activities, missions, attaches, etc., NELM area.
- CNATRA: for all Naval Air Training activities.

The Chief of Naval Personnel has requested that all commands cooperate with the Fleet Reserve Association to insure the success of this contest.

Admiral Lends Helping Hand As Chief Raises Right Arm

Thanks to an accommodating admiral, Robert J. Boynton, AKC, USN, has managed to reenlist. The admiral just happened to be VADM A. M. Pride, USN, ComAirPac.

As chief of material for VS-23 at North Island (San Diego, Calif.), Boynton was left behind when the squadron deployed to the Naval Auxiliary Air Station at El Centro, Calif., for operational training. His enlistment was running out, but he couldn't reenlist because he had no immediate superior to swear him in for another hitch.

Boynton phoned Admiral Pride's Flag Lieutenant to explain his predicament. The flag lieutenant talked over the situation with Admiral Pride and the admiral offered to fill in for Boynton's CO. In practically no time the admiral had the chief on his way toward another hashmark.

The reenlistment bonus check added another bright touch to the occasion.

Permanent Appointments Set For Certain CPOs By 30 June

A considerable number of chief petty officers can plan on permanent appointment by 30 June this year if they have performed three years of satisfactory service and are recommended by their commanding officers. Sea service is not required.

However, permanent appointments will not be issued at this time to all CPOs who have completed the 12 months' service required for acting appointment. Those E-7s on active duty who have completed three years' satisfactory service in acting appointments and who were advanced in fiscal years 1951, 1952 and 1953, will be issued permanent appointments in this fiscal year, which ends 30 June 1956.

Approximately 8000 CPOs satisfy the time requirement for permanent appointment this fiscal year. Appointment is contingent upon the commanding officer's determination of satisfactory service.

Until conditions warrant a return to the minimum of 12 months' satisfactory service in an acting appointment, it is planned to issue in fiscal year 1957 and following years, permanent appointments to CPOs who have completed three years' satisfactory service in acting appointments.

Permanent appointments will also be issued to CPOs who have served at least 12 months in pay grade E-7 at the time they are transferred to the Fleet Reserve and released from active duty.

BuPers Inst. 1430.7A has been revised (by Change 2) to provide for the issuance of CPO permanent appointments.

More Changes Announced in Emergency Service Ratings

Several changes to the enlisted rating structure have been approved by the Secretary of the Navy and announced in BuPers Notice 1223 (20 Mar 1956). The changes, all of which are in emergency service categories, will not go into effect until further notice. Personnel affected by the upcoming ratings will continue to advance in the ratings they now hold, and will not be changed from one rating to another until specific instructions regarding such changes are promulgated.

The newly-established emergency service ratings are:

1. Under *Aviation Fire Control Technician:* Aviation Fire Control Technician B (Bomb Director); and Aviation Fire Control Technician F (Aircraft Armament Control Systems).

2. Under *Air Controlman:* Air Controlman R (Radar); Air Controlman T (Tower); and Air Controlman W (Airborne CIC Operator).

3. Under the *Parachute Rigger* rating: Parachute Rigger S (Survivalman); and Parachute Rigger M (Maintenance).

4. Under *Tradevman:* Tradevman R (Repairman); and Tradevman I (Instructor).

The following emergency service ratings are to be disestablished: Tradevman R (Repairman, Non-Aviation); Tradevman X (Instructor, Non-Aviation); Tradevman V (Repairman, Aviation) and Tradevman U (Instructor, Aviation).

HERE'S YOUR NAVY

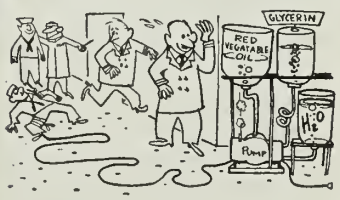
Simulated blood spurted from a jagged wound in the victim's chest as the doctor showed the assembled group where to apply the proper pressure with which to stop the bleeding. The doctor was in no hurry. He often stopped to ask or answer questions of the group. In the meantime, the blood continued to flow until the body

looked as though it had been bathed in a tub of red ink. There wasn't any real rush however, as the body was Mr. Disaster, one of the Navy's most realistic and useful training aids.

Mr. Disaster is a manikin, specially designed to allow demonstrations of first aid problems. He has artificial arteries that react just the same as a human's when pierced, and a vinyl

plastic skin which is hard to tell from the real thing. His blood is a fluid made of a solution of glycerin, water and red vegetable dye and is controlled by a circulating pump. A line assembly of valves can be adjusted to regulate the flow of simulated blood to any part of the body.

Mr. Disaster will probably become



very familiar to many Navymen over the coming years as he will be used in first aid lectures to explain how to treat fractures; how to stop bleeding; how to relieve choking caused by a foreign body in the throat; as well as the proper treatment for a penetrating wound of the chest, and wounds of abdomen, arm or leg.

Pointers on Living Conditions for Panama-Bound Navymen

A ROSTER OF NAVY DUTY stations can easily sound like the offerings of a travel agency and one assignment frequently associated with palm trees, balmy skies and blue seas is Panama. Duty here isn't quite the same as a vacation with all expenses paid, but it does have its pleasanter moments. Here's the word on what you'll find in the way of living conditions.

U. S. naval activities are centered in the Balboa and Coco Solo areas of the Canal Zone. The two largest naval installations are Rodman Naval Station and the Naval Station at Coco Solo.

Climate—Panama City has a tropical climate throughout the year. There are two seasons: dry from January to April, and wet from May to December. During the latter season there is abundant rainfall, especially in September, October and November. The average annual rainfall is 70 inches. The particularly high humidity makes the heat (70 to 90 degrees) more noticeable than in dry climates. On the whole, however, the climate is pleasant, with cool evenings througnout the year, and compares favorably with the summer climate in many parts of the United States.

All naval personnel must have permission for their dependents to enter the Canal Zone (15th Naval District) whether entry is for the purpose of establishing residence or to visit.

Dependents should not begin travel to the area until permission has been granted. Entry will normally be approved contingent upon the availability of quarters.

Inoculations—Your family must have the following immunizations before they start their travel:

Smallpox: All ages (within the past 12 months).

Typhoid, Combined Triple: Over one year of age (within the past 12 months).

Diphtheria: Between six months and 10 years (within past 3 years).

Tetanus: One year of age or over (within the past 12 months).

Yellow Fever: All over six months of age (within the past 6 years).

Housing—Naval housing in the Canal Zone is limited and is a controlling factor in granting permission for dependents to enter the 15th Naval District. When naval quarters are not available, occasionally temporary assignments can be secured (after your arrival) for occupancy of Panama Canal quarters or housing in the cities of Panama or Colon. Rental rates for locally owned quarters in Panama City and Colon are high. Stoves, refrigerators and hot water heaters are not included if quarters are rented unfurnished. Quarters in the Republic of Panama must be certified by a medical officer before they may be rented by naval personnel.

Household Effects—Most government quarters are adequately furnished. Since many types of wood deteriorate in the tropics, and free circulation of air is essential to proper heat control, the quarters are furnished with specially designed furniture to meet those two problems. Assigned furniture cannot be removed to accommodate articles of furniture which are your personal property. It is not advisable to ship to the Canal Zone such items as chairs, studio couches, large expensive musical instruments, or similar items. Types of items not furnished and which you should bring from the States are linens (both bed and table), pots, pans, and kitchen equipment (except stoves and refrigerators), silverware and chinaware. If possible, these items should be brought as "Hold Baggage," since local availability is limited. It is also desirable to bring lamps (both floor and table), pictures, and other wall decorations. When available locally, prices of such items are higher than those in the States.

Electric current is 110-volt, 25-cycle, alternating current (AC) in contrast to 60-cycle current in U. S.

WHAT'S IN A NAME

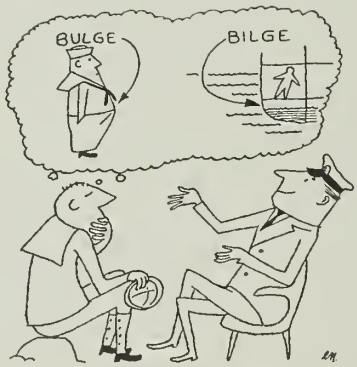
Bilge

Navywise, the ward "bilge" can be anything from a slang expression to a technical term describing a particular area of a ship's hull. Bilge is a variation of the word "bulge," which means a pratruding portion of an object, or a swelling. The bilge of a barrel is its central portion which is of larger diameter than the tap or bottom. In the same context, the interior af the battam of a ship is called its bilge. A ship's bilge area is defined as the part of her hull extending outward from her keel to a point where her sides rise vertically.

In shipyards, the timbers or supports that hold a ship upright in the drydock are known as the "bilge-ways." Ships often have a "bilge-keel" which is a plate running through the bilge area parallel with the keel. This keel prevents side-to-side movement of bilge-water which would cause the ship to roll.

"Bilge-water" gets into a ship thraugh leaks in the hull ar wash entering through a deck opening. If it were nat pumped out, it would became stagnant, and eventually give off an offensive odor which would endanger the health af the crew. This sickness is knawn as "bilge-fever."

The "bilge-well" is the lowest compartment of a ship into which the bilge-water naturally flows. In large vessels it sometimes occupies the entire space between two adjacent decks. This well contains the bilge pumps which either empty the accumulated water overbaard or pump it into the ballast tanks.



Some ships are equipped with "bilge-injection" systems which in the case af an emergency can free the bilge of water by taking it through the ship's main condenser circulating system.

Bilge has lang been a slang expression by which Navymen refer to anything, especially anather's remark, as stale, offensive or worthless. This slang usage relates to bilge-water. There's anather popular conceptian of bilge when it is used as a verb. When a ship runs agraund causing a hole to be stave in her shell, she is said to be bilged. Likewise, when a Navyman is dropped fram service for failing ta pass an exam, he is said to have "bilged out."

Appliances containing motors such as refrigerators, mixing machines, fans, washing machines, record players, etc., wired for 60-cycle current cannot be operated in the Canal Zone and, therefore, should NOT be shipped to the area. Heat generating electrical equipment is not affected by the differences in cycles and may be brought. This includes irons, toasters, vibrator-type razors, etc. Any appliance containing a universal motor, or a radio which will operate on both AC and DC current will work on the 25-cycle current although the latter will require additional condensers to improve local performance.

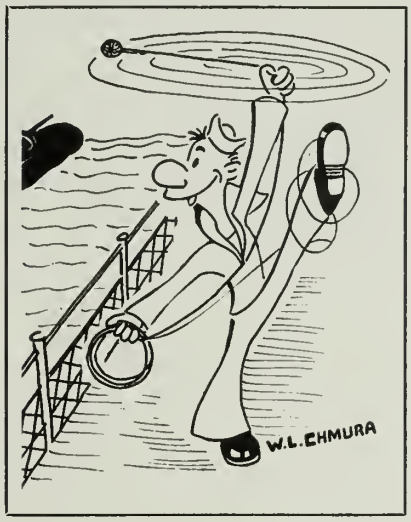
The local Armed Forces Radio and Television service station commences television broadcasts this spring. Otherwise, there are no Panamanian TV stations. However, 60-cycle sets will not operate on 25 cycles without a converter.

Hotel Accommodations—The hotels in Panama City are modern and comfortable. Studio-style bedrooms with private terrace are available; public rooms are airconditioned; and outdoor patio, swimming pool, and cabana club roof garden are featured.

At the swank hotels, rates range from $8 to $11 per day, single occupancy; $9 to $16 per day, double occupancy. At the less expensive hotels, rates average $6 a day, per person. For the most part, hotels are run on the European plan. Some grant a discount to military personnel. The tourist season extends from December through March, and hotel accommodations are sometimes difficult to obtain during these months.

Automobiles—An automobile is a great convenience here and can almost be classed as a necessity since public transportation is not always available. The humid hot climate is hard on cars and the narrow crowded streets in the Republic of Panama have a tendency to make one worry about a brand new car. It is suggested, therefore, that you make no effort to take a new car, but instead, be sure that the car you have is in good operating condition and undercoated before you leave. At the present time tires and batteries and car accessories can be bought reasonably at the annex of the Balboa Commissary, also at

All-Navy Cartoon Contest—
W. L. Ohmura, SN, USN.



Army and Air Force Exchange garages. Mechanical repairs are slow and expensive. New automobiles can be purchased from dealers in Panama City at a cost approximately the same as in New York City. Gasoline costs approximately 20 cents per gallon. It is recommended that you make arrangements with NSD, Bayonne, N. J., for transportation of your car as soon as practicable and you may be able to arrange to have your car on the same transport on which you and your dependents travel. Canal Zone license plates, for the year, cost $5.

Clothing—Clothing suitable for midsummer wear in the United States is the type needed in the Canal Zone. Washable clothing is generally found to be the most practical since dry-cleaning is rather costly and not always of the best. Woolens and furs should be left in the States. It is wise, however, to bring a few woolen items as one may occasionally visit neighboring high altitude places. Silks, woolens, and leather goods are all affected by the local humidity, which is intense.

Clothing for men, women, and children is available at reasonable cost in the Zone commissaries and in the service exchange.

In general, dress is informal. For men, suits of tropical worsted, linens and seersucker are popular for off-duty wear. Take enough shoes to last throughout your stay. Shoe repair service is available.

The uniform of the day for officers and chief petty officers is working khaki without neckties and you should lay in a good supply of trousers and shirts, as the hot climate necessitates a fresh outfit every day. Summer service is rarely worn, and one outfit of this will be sufficient. Whites are worn only on special occasions.

Blues are never worn and you should have no need for them unless you should receive TAD orders to the States during the winter.

The uniform of the day for enlisted personnel is khaki shorts or whites without jumpers. Slacks, shorts and sport shirts are worn more than any other item of civilian wear.

Food—Panama Canal Zone railroad commissaries located in the various Canal Zone communities are comparable to department stores and are operated under government control. Supplies of all kinds for personal and home use may be bought. These commissaries carry in stock foodstuffs, including cold storage produce, meats, fruits, vegetables, cheese, butter, eggs and quick-frozen items.

The food supply is plentiful but lacking in variety, particularly with regard to items in the fresh vegetables and fruits department.

Rich and well-pasteurized milk is available from stores, or deliveries may be made to the home at slightly higher prices. Canned foods are plentiful, including baby foods. It is not necessary to bring food to the Canal Zone.

In addition to food, the railroad commissaries also stock clothing for men, women, and children, hardware, and household furnishings. Although in limited supply, the commissaries offer an excellent opportunity to purchase Irish linens and English china.

The commissaries have family laundry and dry cleaning service. Navy Exchanges operate a laundry and have pick-up and delivery service.

Servants—Domestic servants are available at wages averaging from $30 to $60 per month. They may also be engaged on a daily basis for approximately $2.50 per day. Since there are no employment agencies in the Canal Zone for hiring servants, it is necessary to contact them through newspaper advertisements

or by recommendations from residents.

Medical Facilities—The Navy provides a good dispensary located at headquarters, and also a dispensary at both of the naval stations, to take care of all minor aches and pains of your dependents. Dental service, however, for dependents is hard to get and expensive, and it is suggested that you have all necessary dental work done before they leave the States.

The Canal Zone is singularly free from disease and health conditions are excellent.

Education—The Canal Zone school system compares favorably with modern school systems in most cities of the United States. Excellent facilities for educational work are provided from kindergarten through junior college. Graduates of the two high schools have college entrance qualifications. The curriculum of the junior college is comparable to that of junior colleges in the States. Tuition is free except to the kindergarten and the junior college where fees of $8 and $10 a month respectively are charged.

Religion—Facilities for religious activities are plentiful. You and your family may attend services at Army, Navy and Air Force stations, or at churches of the various denominations in the Canal Zone or nearby communities.

Money, Banking—U. S. currency is used in the Canal Zone, and either U. S. or Panamanian money in nearby cities. The Panamanian unit of currency is the silver *balboa* which is equivalent in value to the U. S. dollar. There are no currency regulations. The United States dollar is legal tender, and may be imported and exported freely.

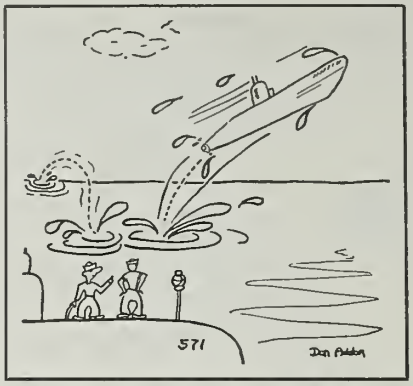
Recreation—Swimming, golf, tennis and fishing are year-round sports, with the Bay of Panama providing some of the best game fishing in the world. Baseball, softball, bowling, track and range shooting are popular, as are riding and hunting.

Trips to neighboring regions can be taken by automobile, plane or boat.

Pets—Every dog or cat brought into the Canal Zone is held in quarantine for a period of four months.

Birth Documents—Naval dependents are advised of the desirability of having in their possession at all times a birth certificate, an affidavit in lieu thereof when birth records are non-existent, or other documentary proof of citizenship. Such documents must be presented if application is made at a U. S. Embassy or Consulate for passports to visit Central or South American countries other than the Republic of Panama. Birth documents and marriage certificates must be presented when registering the birth of children born subsequent to arrival in the Canal Zone.

Passports—Passports are required for entry in Central and South American countries other than the Republic of Panama, but they are not required by naval personnel nor by their dependents to enter the Canal Zone or Panama.



There's that new SSN showing off her neutrons again.

All-Navy Cartoon Contest—
C. C. Brown, SN, USN.

"...and there's a hard hit port side with the bell and both damage control parties are at it again."

If You're Low on Manpower Try This Organization Manual

To help ships and stations avoid snafus in organizing their commands for the most effective use of scarce manpower, the Bureau of Naval Personnel has available for distribution *Organization Planning for Naval Units* (NavPers 18371), a manual of professional interest to officers and personnel men concerned with organization problems.

Apart from certain stipulations contained in *Navy Regulations*, little of an official nature has been written to assist naval personnel in applying modern organizational techniques to the typical command. The Bureau has attempted in this volume to fill that need.

For the operating forces, *Organization Planning* supplements NWP-50 *Shipboard Procedures*, by providing information on the analysis of shipboard organization structures, techniques of planning for more effective organization, and the preparation and use of such specific management tools as functional guides and organization charts. Although the manual is applicable for the most part to large naval shore activities or large naval vessels, it contains techniques that may be of benefit to any command, large or small.

Commands may obtain copies of this manual by submitting a request to the Chief of Naval Personnel.

Correspondence Course in BuMed Orientation

The Medical Department correspondence course, *Medical Department Orientation* (NavPers 10943-A), is now available for enrollment by Regular and Reserve officer and enlisted personnel of the Medical Department. This course consists of two assignments, and is evaluated at six Naval Reserve promotion and retirement points.

The course surveys the background, mission, functions, and facilities of the Medical Department.

Application for this course should be submitted on Form NavPers 992 (Rev 10/54), with appropriate change in the "To" line, forwarded via official channels to the Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Maryland.

Navy Mutual Aid Association, Open to USN & USNR Officers, Aids Members, Dependents

One of the facilities made available through the Navy, with which all officers should become more familiar, is the Navy Mutual Aid Association. Here's a summary of its purpose and the services it can offer to you.

The Navy Mutual Aid Association is a non-profit association established in 1879, under the auspices of the Secretary of the Navy, to provide immediate aid to the dependents of deceased officer personnel in the form of a substantial cash payment wired or cabled anywhere in the world, and in securing pension and other benefits for the dependents of its members.

Membership is open to Regular and Reserve officers of the Navy, Marine Corps and Coast Guard who are not more than 62 years of age. Reserve officers must be on active duty at the time of entrance into the association and must have one year's continuous active service or one year or more of obligated service at time application is submitted. Physical examination is not required if you are 40 years of age or under. The benefits of the association continue when you retire, resign or are in an inactive status.

The association acts promptly upon receipt of the official notice of a member's death ($1,000 is sent immediately without waiting for proof of death so your dependents are not left stranded without funds), furnishing forms and assisting your dependents in the preparation, submission and follow-up of government claims. If a claim for pension or compensation is decided adversely the association provides, without charge, legal representation before the Veterans Board of Appeals.

It also provides numerous services for its members. For example, membership in the Navy Mutual Aid Association entitles you to obtain quick loan service anywhere in the world, provides a central depository for valuable documents and free photostatic service. In addition, you are kept up to date on changes in government benefits and other important information.

The premiums for the $7,500 benefit vary with your age and become fully paid-up at age 50, 55, 60 or 65 depending on the plan selected. If you wish, a low-cost plan on ordinary life membership is also provided. The association pays a terminal dividend of $1,000 in addition to the regular benefit of $7,500. For example a man joining the association at age 23 pays $10.35 a month and his payments stop at age 60. In the event of death, his beneficiary would be paid $7,500 plus terminal dividend of $1,000.

If interested, direct your inquiry to Navy Mutual Aid Association, Navy Department, Wash. 25, D. C.

HOW DID IT START

From Cubits to Knots to Angstrom Units

When Queen Cleopatra of Egypt floated down the Nile on her ornate barge, she measured the distance in *cubits*. A cubit (20.62 inches) supposedly represented the distance from the elbow to the tip of the average Egyptian's middle finger. In multiples of 100 and 1000, this human measuring rod was used to engineer the silent Sphinx and the great pyramids of the Pharaohs.

Since Roman legions rarely walked on their forearms, Caesar found it more convenient to measure the area of his empire in *paces* and *miles*. The Roman pace was approximately five feet, and 1000 paces equalled a mile. This gives you a picture of extremely long-legged Romans, but their pace was two steps instead of the present day concept of one step per pace.

Early Saxons of Europe and England measured both land and water in units called *faethms*. One fathom, even today, equals six feet. It divides into two yards, originally a clothmaker's measure. The *rod*, *chain*, *furlong* and present day mile are all related to the old Saxon fathom. The mariner's "cable length" is still 120 fathoms or 720 feet in the U. S. Navy.

The furlong is short for "one furrow long," supposedly the distance oxen could plow without stopping to rest. It's now officially 220 yards. The *inch* was defined in King Edward II's time as equal to three grains of barley laid end to end. Even today, shoe sizes vary by *barleycorns*, or thirds of an inch.

Many odd measures of distance have come and gone. In 16th century England, seamen used the term *kenning*—the distance a voyager could see on a clear day. It usually meant 20 miles. In India, a *kos* or *krosh* was the distance a runner could travel with a branch broken from a bush before the leaves wilted. This must have been confusing because the distance could vary from one to three miles, depending on the runner and the type of bush.

Modern measuring systems are no less confusing. The *nautical mile*, approximately 796 feet longer than the familiar legal mile of 5280 feet, is the official geographic mile of the mapmaker. San Francisco is 2600 land miles from New York, but aircraft pilots will tell you that the distance is only 2260 miles—nautical miles that is. Pilots, tower operators and weathermen now use sea language, as military airmen of all branches have done since 1947.

Since nautical miles are longer than land miles, both distances and speeds in the new terminology seem less than in the old figures. A 300-miles-per-hour airliner, for example, goes only about 270 knots. Breaking the sea-level sound barrier of 760 mph (land miles) means a nautical speed of only 670 knots.

Nautical miles are based on the distance around the equator. This is simply a circle containing 360 degrees. Each degree contains 60 nautical miles, and therefore, the distance around the earth at the equator is 21,600 nautical miles. In August 1954, this country adopted the international nautical mile, some four feet shorter than the original nautical mile. The official length of this mile is now 6076.10333 feet.

A *knot* is a measure of speed rather than of distance. It's simply one nautical mile per hour. The term comes from sailing ship days, from knots actually tied in a ship's log line by which speed was gauged.

Modern measurement is a science of unbelievable accuracy and of vast scope. The physicist's *angstrom units*, some 254,000,000 to the inch, are used to measure light waves. Astronomers, on the other hand, use a *light* year—roughly 6,000,000,000,000 miles—to mark the distances between stars and galaxies.

Check Your Status by Rate and ND Location

On the following pages appears the latest chart of standings on the Bureau Shore Duty Eligibility List.

This information is published to give you a general idea of your relative position on the list. However, due to time lapse in compilation and publishing schedules, this information is usually two months old by the time you read it. Keep this in mind when making your calculations.

Here is how to use this chart. Check down the left side until you find your rate. Then, check across to the naval district you requested.

- *Under each naval district you will note there are four columns. The first column shows the number of men of your rate waiting on the SDEL for that district.*
- *The second column shows the number of authorized billets allowed for your rate within that district.*
- *The third column shows the number of months of continuous sea duty the first man on the list has to his credit.*
- *The fourth column shows the number of months of continuous sea duty the fourth man from the top of the list has to his credit.*

That's it. You now have as accurate a picture of your relative position to the top of the SDEL as you could obtain by a visit, letter, or long distance call to the Bureau of Naval Personnel.

To show the use of this chart by example, let's say you are a YN1 with 32 months of continuous sea duty, and you desire duty in the Ninth Naval District. Moving across the chart to where the YN1 and 9ND headings meet, you can see, in the first column under the district heading, that there are just five men of your rate on the list of 9ND.

In the next column you see 9ND has an allowance of 56 YN1 billets. In the third column you note that the top YN1 has 65 months of continuous sea duty, and in the fourth column you see where the fourth man from the top of the list has 30 months' continuous sea duty.

With your 32 months' continuous sea duty, you are obviously number two or three man from the top.

Now comes the crystal gazing as to just when the Bureau will reach your name on the list and order you to shore duty. Frankly, with the facts on this chart available to you, your guess is apt to be as accurate as any the Bureau can make. Various factors influence the issuance of orders and therefore only a general prognostication can be made.

Let's estimate that roughly one third of the YN1 billets currently being filled in the 9ND will become vacant within 12 months due to personnel completing their tours of normal shore duty. As you are 2nd or 3rd on the SDEL you may logically conclude that you probably will be ordered ashore within the next 12 months . . . provided other YN1s with more continuous sea duty do not apply for 9ND between now and such time as your name would normally reach the top of the list.

Always remember when submitting your shore duty

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	TOTAL NUMBER MEN ON SDEL	ANYWHERE U. S. MOS. SEA DUTY		1ST ND				3RD ND				4TH ND				5TH ND				6TH ND			
								MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY	
				1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Boatswain's Mate	BMC	36	127	156	85	11	53	156	76	10	25	105	61	4	19	57	—	4	72	62	42	18	65	88	68
	BM1	48	195	97	85	15	35	163	88	12	16	79	74	17	11	190	109	9	61	67	64	36	51	209	170
	BM2	48	590	147	92	43	36	84	83	38	20	98	93	33	18	102	91	32	53	81	77	102	154	147	80
	BM3	48	405	128	95	38	27	150	92	33	9	149	93	24	6	92	84	23	26	97	77	65	92	111	76
	BMSN	48	23	139	81	5	X	139	64	1	X	68	—	2	X	55	—	1	X	55	—	6	X	81	55
Quartermaster	QMC	48	19	—	—	0	20	—	—	2	7	80	—	0	9	—	—	2	25	98	—	0	36	—	—
	QM1	48	91	113	83	9	25	82	69	11	6	116	95	7	10	100	68	7	15	90	66	6	43	90	75
	QM2	36	47	96	66	8	23	117	92	5	12	96	48	4	14	100	43	1	71	54	—	3	93	60	—
	QM3	36	105	101	69	8	10	88	70	10	1	109	75	4	1	61	46	1	13	69	55	13	8	94	65
	QMSN	36	7	51	—	1	X	43	—	0	X	76	—	0	X	—	—	1	X	44	—	1	X	43	—
Radarman	RDC	18	29	101	50	3	0	97	—	3	1	123	46	3	1	86	—	1	1	30	—	1	3	33	—
	RD1	24	106	117	75	17	8	142	95	8	2	95	73	10	7	98	88	11	33	78	72	11	37	69	66
	RD2	24	12	72	—	4	30	64	34	1	1	73	—	0	14	—	—	1	64	40	—	1	96	72	—
	RD3	24	18	57	38	4	13	38	29	2	1	42	—	2	3	79	—	1	19	49	—	0	10	—	—
	RDSN	24	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Sanarman	SOC	18	7	57	—	1	0	193	—	1	2	32	—	2	1	50	—	0	5	—	—	0	1	—	—
	SO1	24	55	95	79	7	5	93	69	3	2	78	—	5	5	86	50	2	8	66	—	6	12	56	38
	SO2	24	6	—	—	2	4	71	—	2	3	96	—	0	4	—	—	0	13	—	—	1	9	34	—
	SO3	24	2	45	—	0	3	—	—	0	0	—	—	0	2	—	—	0	11	—	—	0	2	—	—
	SOSN	24	1	—	—	1	X	44	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Tarpedaman's Mate	TMC	48	20	74	—	1	13	73	—	1	0	135	—	3	2	98	—	0	7	—	—	2	22	100	—
	TM1	48	23	52	—	2	16	71	—	2	1	102	82	8	41	20	56	0	9	—	—	1	15	79	—
	TM2	36	18	59	—	1	18	59	—	1	3	57	—	3	3	55	—	0	25	—	—	1	28	53	—
	TM3	36	4	53	—	0	20	—	—	0	0	—	—	0	0	—	—	0	10	—	—	2	10	53	—
	TMSN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Gunner's Mate	GMC	48	56	115	77	3	6	77	55	2	1	81	—	3	2	196	—	21	9	131	57	12	12	98	69
	GM1	48	214	166	122	17	14	171	138	13	6	165	105	11	3	147	96	25	10	177	94	37	23	132	99
	GM2	48	216	104	96	17	28	94	86	19	6	170	45	20	9	144	92	24	51	91	87	26	64	104	86
	GM3	36	163	97	94	11	7	101	68	11	3	100	85	15	0	100	88	9	10	98	64	30	7	99	90
	GMSN	36	12	108	55	2	X	60	—	2	X	59	—	1	X	55	—	1	X	55	—	0	X	—	—

n Latest BuPers Shore Duty Eligibility List

request that if you are primarily concerned with getting a billet ashore and have no compelling reasons for limiting your request for duty to a particular area, YOU WILL GET ASHORE FASTER IF YOU INDICATE YOU WILL ACCEPT DUTY "Anywhere U. S."

Keep the following in mind as you study this chart:

- *The Bureau's Shore Duty Eligibility List is subject to frequent change as new requests are received. Although you might be No. 3 man this month, you could drop to No. 6 or No. 7 by next month, if other men of your rate submit requests for the district you have chosen and if these men have more sea duty than you.*

- *This chart shows your standing on the Bureau's SDEL only. It contains no information for men who have submitted requests for Fleet Shore Duty or for Recruiting or Instructor duty lists.*

- *Personnel who fall under any of the following categories are not included in the table below:*

(1) Men serving on overseas duty or in non-rotated ships whose dependents are overseas with them and who have not completed a full tour of duty at that station.

(2) Men serving on overseas duty or non-rotated ships whose dependents are not with them, but who have completed less then 12 months of a normal tour of duty in that location.

- *Ratings, such as MU, MA, CT, TD, AG and AC are not included because they are subject to special detailing.*

NOTES

- *You'll see that the allowance column for each district on the chart below contains an "X" in the space opposite "designated striker" rates such as BMSN, GMSN, CN/CA, AN/AA, etc. This indicates that strikers are eligible to request this area. The number in the quota may not be given since strikers are included in a "package of billets" that the district is authorized for personnel in this rating category.*

- *In some cases the number of months shown in columns three and four under the district you have chosen would indicate that you are included within the top two or three men in the district for which you have requested duty. If you still haven't received your orders, this may be the reason: Although you may be among the top men in your district, you may have less sea duty than one or more men in your rate who request "Anywhere U. S." Such men receive first consideration for assignment to any naval district if they have more continuous sea duty than the men who have requested duty in a specific district.*

Therefore, when you check your standing on the SDEL, be sure to take a look at the first column, "Anywhere U. S."

If the person in your rate in that column has more continuous sea duty than you, there may be a delay in your orders until you finally have more sea duty than all those in your rate who request "Anywhere U. S."

8TH ND				9TH NO				11TH ND				12TH NO				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
9	12	84	69	13	11	72	54	33	73	80	68	9	39	155	59	9	33	69	62	0	48	—	—	0	9	—	—	BMC
16	10	103	71	15	16	146	76	9	47	136	78	10	46	68	66	4	24	66	56	7	55	60	56	4	24	72	60	BM1
69	36	162	88	53	30	114	97	53	76	102	47	23	47	92	77	25	30	85	81	23	28	98	76	13	12	86	74	BM2
31	4	95	79	56	0	94	91	45	51	101	81	24	17	93	80	18	28	86	69	17	36	94	69	13	16	85	68	BM3
2	X	98	—	1	X	52	—	1	X	54	—	0	X	—	—	1	X	62	—	2	X	52	—	1	X	107	—	BMSN
0	17	—	—	0	10	—	—	8	43	66	55	2	25	56	—	5	6	166	83	1	30	86	—	0	2	—	—	QMC
9	56	60	69	6	26	89	67	18	17	156	80	6	28	113	88	6	6	89	60	1	17	62	—	2	3	69	—	QM1
3	35	92	—	5	32	62	56	8	63	68	64	2	39	88	—	3	14	61	—	3	19	78	—	2	3	57	—	QM2
6	1	154	80	6	0	57	55	15	15	87	65	8	7	67	55	8	5	68	49	6	6	94	57	1	0	101	—	QM3
0	X	—	—	0	X	—	—	3	X	79	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	QMSN
3	2	50	—	2	6	44	—	3	5	214	—	4	3	56	26	2	1	66	—	2	4	37	—	0	0	—	—	RDC
8	14	72	69	8	19	71	64	20	40	78	70	9	14	117	62	2	2	56	—	3	6	82	—	1	0	36	—	RD1
1	41	39	—	2	28	45	—	1	97	64	—	0	35	—	—	1	8	38	—	0	19	—	—	0	1	—	—	RD2
1	1	38	—	1	6	29	—	2	17	44	—	1	6	38	—	2	2	50	—	0	3	—	—	0	0	—	—	RD3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	RDSN
0	2	—	—	2	3	66	—	0	3	—	—	1	1	32	—	1	0	199	—	0	1	—	—	0	0	—	—	SOC
0	6	—	—	3	6	60	59	16	16	116	61	3	6	68	—	3	1	62	—	1	2	41	—	3	1	79	—	SO1
0	4	—	—	0	7	—	—	0	10	—	—	1	3	43	—	0	2	—	—	0	2	—	—	1	0	34	—	SO2
0	0	—	—	1	0	42	—	0	8	—	—	0	1	—	—	1	2	45	—	0	0	—	—	0	0	—	—	SO3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	SOSN
0	6	—	—	0	3	—	—	3	19	81	52	3	12	95	—	6	9	147	74	0	4	—	—	0	0	—	—	TMC
2	3	103	—	1	10	71	—	2	21	73	—	2	4	81	—	2	12	91	—	0	4	—	—	0	0	—	—	TM1
1	13	64	—	3	10	83	—	4	30	187	59	1	10	153	—	1	15	55	—	1	2	54	—	0	0	—	—	TM2
0	0	—	—	1	0	47	—	0	10	—	—	0	1	—	—	1	11	48	—	0	0	—	—	0	0	—	—	TM3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	TMSN
7	7	115	67	3	4	21	—	9	11	225	76	7	32	22	82	5	5	78	55	0	17	—	—	0	2	—	—	GMC
21	11	167	99	18	6	136	102	27	13	109	107	12	7	166	131	14	1	166	98	5	7	162	67	1	0	99	—	GM1
21	35	97	81	24	23	96	92	29	69	145	96	9	21	99	94	8	12	98	80	7	24	98	62	2	2	87	—	GM2
17	8	98	91	18	0	99	88	14	5	94	81	5	2	94	53	7	1	85	55	3	15	64	—	2	1	60	—	GM3
0	X	—	—	3	X	69	—	2	X	60	—	1	X	108	—	0	X	—	—	0	X	—	—	0	X	—	—	GMSN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SOEL	TOTAL NUMBER MEN ON SOEL	ANYWHERE U. S. MOS. SEA DUTY		1ST NO				3RD NO				4TH NO				5TH NO				6TH NO			
								MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS SEA DUTY	
				1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Fire Control Technician and Fire Controlman	FTC/FCC	18	27	91	67	—	1	—	—	1	2	56	—	1	0	26	—	—	1	—	—	4	2	72	31
	FT1/FC1	18	38	106	104	7	1	100	91	2	3	84	—	2	1	88	—	3	1	121	—	3	1	54	24
	FT2/FC2	36	6	66	—	1	5	67	—	1	0	95	—	—	5	—	—	—	25	78	—	—	53	—	—
	FT3/FC3	36	4	—	—	1	3	87	—	—	1	—	—	—	0	—	—	1	1	78	—	—	2	—	—
	FTSN/FCSN	36	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Mineman	MNC	18	0	—	—	—	4	—	—	—	2	—	—	—	10	—	—	—	7	—	—	—	3	—	—
	MN1	18	1	—	—	—	6	—	—	—	3	—	—	—	11	—	—	—	13	—	—	—	2	—	—
	MN2	18	1	—	—	—	6	—	—	—	3	—	—	—	19	—	—	—	17	—	—	—	4	—	—
	MN3	18	0	—	—	—	4	—	—	—	6	—	—	—	0	—	—	—	25	—	—	—	5	—	—
	MNSN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Electronics Technician	ETC	18	5	—	—	—	8	—	—	2	1	34	—	—	3	—	—	—	11	—	—	—	18	—	—
	ET1	18	11	123	—	1	13	130	—	3	4	94	—	3	9	97	—	—	22	—	—	—	31	—	—
	ET2	24	0	—	—	—	16	—	—	—	7	—	—	—	13	—	—	—	28	—	—	—	45	—	—
	ET3	24	1	—	—	—	21	—	—	1	7	38	—	—	12	—	—	—	36	—	—	—	49	—	—
	ETSN	24	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Instrumentman	IMC	36	4	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—
	IM1	36	4	45	—	—	3	—	—	—	0	—	—	—	0	—	—	1	4	76	—	—	1	—	—
	IM2	24	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	7	—	—	—	3	—	—
	IM3	24	7	37	—	—	0	—	—	1	0	33	—	—	0	—	—	—	1	—	—	4	1	39	36
	IMSN	24	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Opticalman	OMC	36	2	—	—	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—
	OM1	36	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	OM2	24	1	47	—	—	0	—	—	—	1	—	—	—	1	—	—	—	2	—	—	—	0	—	—
	OM3	24	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	OMSN	24	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Telemon	TEC	18	14	—	—	1	2	35	—	1	2	45	—	1	4	23	—	2	10	35	—	1	14	74	—
	TE1	18	26	60	40	4	9	113	40	5	12	53	43	2	10	132	—	—	24	—	—	3	34	60	—
	TE2	24	12	—	—	4	19	100	29	2	11	75	—	—	13	—	—	—	42	—	—	2	34	67	—
	TE3	24	22	90	30	—	26	—	—	2	12	90	—	2	11	50	—	—	60	—	—	4	49	56	40
	TESN	24	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Radioman	RMC	36	63	70	58	4	19	83	45	6	6	119	47	5	11	67	41	2	28	60	—	—	58	—	—
	RM1	36	119	84	55	14	28	105	69	13	5	103	90	9	16	93	63	11	37	83	56	11	69	88	55
	RM2	36	25	99	64	6	43	91	59	1	4	52	—	2	19	97	—	—	57	—	—	2	94	64	—
	RM3	24	32	84	36	2	42	56	—	5	9	84	44	1	19	49	—	—	56	—	—	3	70	48	—
	RMSN	24	6	46	—	—	X	—	—	1	X	32	—	—	X	—	—	—	X	—	—	2	X	32	—
Yeoman	YNC	18	26	—	—	—	17	—	—	2	31	26	—	—	21	—	—	2	49	39	—	4	53	56	—
	YN1	18	43	31	—	10	40	68	46	2	40	44	—	3	28	65	—	—	75	—	—	7	93	36	24
	YN2	18	10	—	—	1	62	43	—	—	43	—	—	2	38	93	—	—	99	—	—	—	123	—	—
	YN3	18	7	—	—	—	97	—	—	1	62	27	—	—	32	—	—	—	121	—	—	—	151	—	—
	YNSN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Personnel Man	PNC	18	0	—	—	—	12	—	—	—	10	—	—	—	5	—	—	—	27	—	—	—	21	—	—
	PN1	18	2	—	—	—	16	—	—	1	10	49	—	—	16	—	—	—	62	—	—	—	34	—	—
	PN2	18	4	—	—	1	25	29	—	2	18	47	—	—	9	—	—	—	89	—	—	1	54	47	—
	PN3	18	0	—	—	—	38	—	—	—	20	—	—	—	18	—	—	—	131	—	—	—	84	—	—
	PNSN	24	0	—	—	—	X	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
Storekeeper	SKC	24	32	40	28	2	16	35	—	1	15	40	—	3	13	34	—	—	36	—	—	4	42	45	36
	SK1	18	60	60	45	4	35	48	45	5	24	46	38	3	21	71	—	—	71	—	—	9	68	61	46
	SK2	24	43	48	40	4	49	55	32	2	30	48	—	4	29	38	—	—	92	—	—	11	87	45	43
	SK3	18	10	34	—	2	54	64	—	—	38	—	—	—	36	—	—	—	114	—	—	—	117	—	—
	SKSN	18	4	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Disbursing Clerk	DKC	18	5	—	—	—	5	—	—	—	3	—	—	—	6	—	—	—	13	—	—	2	7	37	—
	DK1	18	13	95	23	2	7	45	—	2	5	57	—	—	7	—	—	—	23	—	—	—	21	—	—
	DK2	18	6	52	—	1	7	57	—	—	11	—	—	—	9	—	—	—	26	—	—	—	20	—	—
	DK3	18	4	—	—	—	10	—	—	1	3	30	—	—	11	—	—	—	34	—	—	1	30	43	—
	DKSN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Commissaryman	CSC	36	65	68	54	1	19	56	—	0	4	—	—	0	11	—	—	1	46	40	—	5	76	55	44
	Cook CS1	24	178	49	45	17	143	154	48	7	31	55	45	10	36	99	52	23	366	44	39	25	234	57	47
	Cook CS2	24	52	94	—	5	143	53	31	8	31	99	62	11	36	81	57	2	366	28	—	6	234	60	41
	Cook CS3	24	43	40	—	1	143	30	—	3	31	42	—	5	36	48	36	0	366	—	—	11	234	107	46
	Cook CSSN	24	2	38	—	1	X	38	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
	Baker CS1	24	58	76	40	2	28	47	—	5	10	80	39	1	7	42	—	3	101	35	—	9	72	47	40
	Baker CS2	24	87	68	59	15	28	126	70	8	10	68	53	8	7	69	45	1	101	35	—	9	72	53	34
	Baker CS3	24	18	52	38	4	28	106	49	1	10	52	—	0	7	—	—	0	101	—	—	2	72	38	—
	Baker CSSN	24	6	54	—	4	X	54	46	0	X	—	—	0	X	—	—	0	X	—	—	1	72	33	—
	Butcher CS1	24	12	38	27	0	36	—	—	1	3	56	—	3	18	91	—	0	80	—	—	2	87	35	—
	Butcher CS2	24	2	—	—	0	36	—	—	0	3	—	—	0	18	—	—	1	80	28	—	1	87	35	—
	Butcher CS3	24	1	37	—	0	36	—	—	0	3	—	—	0	18	—	—	0	80	—	—	1	87	37	—
	Butcher CSSN	24	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	87	—	—
Ship's Serviceman	Laundry SH1	48	103	121	109	11	4	117	103	7	1	118	85	7	5	99	88	9	23	121	104	19	15	112	101
	Laundry SH2	48	153	108	102	17	4	113	103	8	1	113	94	9	5	99	77	17	23	104	98	24	15	108	97
	Laundry SH3	36	130	95	81	13	4	92	70	7	1	89	57	9	5	86	66	14	23	94	65	26	15	100	79
	Laundry SHSN	36	22	99	69	1	X	69	—	1	X	100	—	4	X	66	42	1	X	66	—	3	X	55	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MDS. SEA DUTY				MOS. SEA DUTY				MDS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY		
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
—	2	—	—	3	0	87	—	10	2	235	91	4	1	91	24	2	0	67	—	2	2	97	—	—	1	—	—	FTC/FCC
—	1	—	—	6	1	131	70	5	1	106	68	2	3	102	—	4	2	104	62	1	1	97	—	2	2	100	—	FT1/FC1
—	22	—	—	1	6	88	—	—	23	—	—	—	18	—	—	1	5	66	—	1	8	80	—	1	3	40	—	FT2/FC2
—	1	—	—	1	0	93	—	—	4	—	—	—	0	—	—	1	1	50	—	—	0	—	—	—	4	—	—	FT3/FC3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	FTSN/FCSN
—	0	—	—	—	1	—	—	—	1	—	—	—	3	—	—	—	4	—	—	—	2	—	—	—	0	—	—	MNC
—	1	—	—	—	1	—	—	—	2	—	—	1	3	104	—	—	5	—	—	—	2	—	—	—	0	—	—	MN1
—	0	—	—	—	0	—	—	1	0	99	—	—	2	—	—	—	5	—	—	—	2	—	—	—	0	—	—	MN2
—	0	—	—	—	0	—	—	—	2	—	—	—	5	—	—	—	18	—	—	—	2	—	—	—	0	—	—	MN3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	MNSN
—	8	—	—	—	6	—	—	—	22	—	—	3	7	40	—	—	7	—	—	—	15	—	—	—	4	—	—	ETC
—	18	—	—	1	20	58	—	—	27	—	—	3	23	123	—	—	16	—	—	—	35	—	—	—	4	—	—	ET1
—	18	—	—	—	19	—	—	—	31	—	—	—	34	—	—	—	22	—	—	—	39	—	—	—	4	—	—	ET2
—	21	—	—	—	16	—	—	—	49	—	—	—	40	—	—	—	24	—	—	—	37	—	—	—	5	—	—	ET3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ETSN
—	0	—	—	—	0	—	—	4	2	141	83	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IMC
—	0	—	—	—	0	—	—	3	3	60	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IM1
1	0	61	—	—	0	—	—	—	0	—	—	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IM2
—	0	—	—	1	0	40	—	1	0	53	—	—	0	—	—	—	0	—	—	—	2	—	—	—	0	—	—	IM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	IMSN
—	0	—	—	—	0	—	—	2	3	113	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	OMC
—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	OM1
—	0	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	OM2
—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	OM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	OMSN
1	7	22	—	—	5	—	—	5	10	54	47	—	13	—	—	—	4	—	—	2	16	23	—	—	1	—	—	TEC
4	13	46	33	2	8	51	—	2	26	40	—	1	29	26	—	—	8	—	—	2	27	78	—	1	3	64	—	TE1
—	18	—	—	—	14	—	—	2	30	52	—	—	37	—	—	2	11	77	—	—	45	—	—	—	3	—	—	TE2
4	17	44	29	7	19	180	44	—	53	—	—	—	52	—	—	3	9	55	—	—	82	—	—	—	1	—	—	TE3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	TESN
1	18	62	—	5	7	49	41	20	36	70	63	4	28	59	44	14	10	168	64	1	42	44	—	—	0	—	—	RMC
10	26	55	48	8	10	69	61	17	51	95	70	9	42	85	58	7	27	116	66	4	59	52	51	2	0	—	—	RM1
6	37	50	43	8	16	99	48	—	71	—	—	1	70	71	—	—	31	—	—	—	87	—	—	—	2	—	—	RM2
7	22	48	41	9	13	60	42	1	67	45	—	1	59	43	—	1	32	31	—	1	85	54	—	—	0	—	—	RM3
—	X	—	—	2	X	46	—	1	X	38	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	RMSN
—	31	—	—	1	32	26	—	10	51	48	38	6	25	59	37	—	10	—	—	1	33	39	—	—	2	—	—	YNC
6	35	82	35	5	56	65	30	—	79	—	—	8	45	69	39	3	17	41	—	—	59	—	—	—	3	—	—	YN1
—	63	—	—	5	88	54	33	—	126	—	—	2	51	64	—	—	19	—	—	—	68	—	—	—	2	—	—	YN2
—	62	—	—	2	77	28	—	—	144	—	—	—	74	—	—	4	17	31	26	—	88	—	—	—	6	—	—	YN3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	YNSN
—	16	—	—	—	20	—	—	—	27	—	—	—	16	—	—	—	8	—	—	—	10	—	—	—	1	—	—	PNC
—	30	—	—	—	44	—	—	—	68	—	—	—	25	—	—	1	11	26	—	—	22	—	—	—	3	—	—	PN1
—	33	—	—	—	61	—	—	—	92	—	—	—	33	—	—	—	9	—	—	—	31	—	—	—	4	—	—	PN2
—	38	—	—	—	78	—	—	—	156	—	—	—	40	—	—	—	13	—	—	—	33	—	—	—	7	—	—	PN3
—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	PNSN
1	9	43	—	—	20	—	—	11	34	44	38	8	22	66	44	2	6	100	—	—	16	—	—	—	2	—	—	SKC
6	14	66	34	5	25	48	32	12	67	51	44	12	43	50	43	2	18	44	—	—	35	—	—	1	5	33	—	SK1
2	21	44	—	13	38	51	43	3	96	40	—	2	58	41	—	1	17	37	—	1	46	34	—	1	3	26	—	SK2
2	22	41	—	6	38	47	29	—	123	—	—	—	65	—	—	—	15	—	—	—	54	—	—	—	11	—	—	SK3
2	X	44	—	2	X	43	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SKSN
1	3	21	—	—	2	—	—	1	14	23	—	1	7	25	—	—	5	—	—	—	7	—	—	—	1	—	—	DKC
1	8	23	—	3	5	49	—	1	21	132	—	2	10	34	—	2	4	95	—	—	6	—	—	—	2	—	—	DK1
1	8	21	—	2	7	44	—	1	29	52	—	—	11	—	—	—	6	—	—	—	12	—	—	2	2	22	—	DK2
1	14	29	—	1	8	36	—	—	46	—	—	—	10	—	—	—	5	—	—	—	12	—	—	—	2	—	—	DK3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	DKSN
2	37	58	—	3	22	68	57	28	46	59	57	14	32	56	53	7	9	57	62	1	16	47	—	0	7	—	—	CSC
14	97	70	39	20	300	76	40	30	371	46	42	14	151	45	43	8	48	102	39	2	110	44	—	4	15	70	44	CS1
9	97	88	54	7	300	62	43	0	371	61	—	2	151	63	—	1	48	48	—	0	110	—	—	0	15	—	—	CS2
13	97	64	53	6	300	46	—	0	371	—	—	0	151	—	—	3	48	44	—	0	110	—	—	0	15	—	—	CS3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	1	X	49	—	0	X	—	—	0	X	—	—	CSSN
6	47	53	38	6	48	44	40	13	100	56	40	4	29	112	38	3	12	76	—	4	20	48	29	0	4	—	—	CS1
9	47	60	44	10	48	60	43	15	100	173	67	3	29	63	27	6	12	68	48	2	20	111	—	1	4	59	—	CS2
3	47	51	—	0	48	—	—	3	100	54	—	2	29	52	—	3	12	45	—	0	20	—	—	0	4	—	—	CS3
0	X	—	—	0	X	—	—	1	X	34	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	CSSN
0	28	—	—	2	52	39	—	3	63	38	—	0	38	—	—	1	10	80	—	0	40	—	—	0	6	—	—	CS1
0	28	—	—	0	52	—	—	0	63	—	—	0	38	—	—	0	10	—	—	0	40	—	—	1	6	—	—	CS2
0	28	—	—	0	52	—	—	0	63	—	—	0	38	—	—	0	10	—	—	0	40	—	—	0	6	—	—	CS3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	CSSN
7	3	99	88	5	10	108	71	17	16	118	102	3	6	98	—	3	8	81	—	2	12	97	—	0	3	94	—	SH1
17	3	132	94	14	10	105	101	22	16	104	98	4	6	99	92	6	8	105	94	4	12	74	63	3	3	99	60	SH2
22	3	106	91	10	10	82	57	13	16	80	62	4	6	66	48	2	8	58	—	3	12	61	—	2	3	63	—	SH3
1	X	39	—	1	X	49	—	3	X	121	—	3	X	95	—	1	X	99	—	1	X	66	—	0	X	—	—	SHSN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	TOTAL NUMBER MEN ON SDEL	ANYWHERE U. S. MDS. SEA DUTY		1ST ND				3RD ND				4TH ND				5TH ND				6TH ND			
								MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY	
				1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
	Barber SH1	48	18	100	51	1	0	60	7	2	1	150	—	1	4	94	—	4	24	171	66	3	40	71	—
	Barber SH2	48	15	109	56	1	0	52	—	0	1	101	—	1	4	—	—	2	24	67	—	3	40	109	—
	Barber SH3	36	12	68	42	1	0	42	—	0	1	—	—	0	4	—	—	0	24	—	—	2	40	68	—
	Barber SHSN	36	1	—	—	1	X	40	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
	Tailor SH1	48	6	87	61	0	0	—	4	0	X	—	1	1	0	87	—	0	6	—	—	0	4	—	—
	Tailor SH2	48	6	96	—	2	0	109	—	1	X	78	—	0	0	—	—	0	6	—	—	0	4	—	—
	Tailor SH3	36	5	—	—	1	0	41	—	2	X	99	—	0	0	—	—	0	6	—	—	1	4	76	—
	Tailor SHSN	36	0	—	—	0	X	—	—	0	—	—	—	0	X	—	—	0	X	—	—	0	X	—	—
	Cobbler SH1	48	6	64	—	0	0	—	2	0	0	—	—	0	X	—	—	0	2	—	—	1	X	87	—
	Cobbler SH2	48	5	105	—	1	0	105	—	0	0	—	—	0	X	—	—	0	2	—	—	3	X	92	—
	Cobbler SH3	36	1	44	—	0	0	—	—	0	0	—	—	0	X	—	—	0	2	—	—	0	X	—	—
	Cobbler SHSN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
	Store SH1	48	90	120	94	9	9	106	82	6	13	120	91	3	X	114	60	6	20	91	71	15	40	100	88
	Store SH2	48	10	67	—	1	9	93	—	1	13	64	—	0	X	—	—	0	20	—	—	3	40	67	—
	Store SH3	36	2	48	—	0	9	—	—	0	13	—	—	0	X	—	—	0	20	—	—	0	40	—	—
	Store SHSN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
	SHC	24	11	52	42	3	5	73	—	0	2	—	—	0	3	—	—	2	9	52	—	1	13	45	—
Journalist	JOC	18	0	—	—	—	2	—	—	—	1	—	—	—	2	—	—	—	4	—	—	—	1	—	—
	JO1	18	0	—	—	—	3	—	—	—	1	—	—	—	1	—	—	—	5	—	—	—	6	—	—
	JO2	18	0	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	2	—	—	—	9	—	—
	JO3	18	0	—	—	—	3	—	—	—	1	—	—	—	0	—	—	—	6	—	—	—	9	—	—
	JOSN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Lithographer & Printer	LIC/PIC	24	7	47	—	1	0	35	—	0	0	—	—	0	0	—	—	1	0	34	—	0	0	—	—
	LI1/PI1	24	10	56	—	0	4	—	—	0	1	56	30	5	2	30	—	1	2	—	—	0	1	—	—
	LI2/PI2	24	4	75	—	0	0	—	—	0	0	—	—	1	0	38	—	0	0	—	—	0	0	—	—
	LI3/PI3	24	2	—	—	1	0	51	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
	LISN/PISN	24	1	—	—	1	X	45	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Draftsman	DMC	18	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	2	—	—	—	0	—	—
	DM1	18	0	—	—	—	2	—	—	—	4	—	—	—	0	—	—	—	9	—	—	—	2	—	—
	DM2	18	0	—	—	—	1	—	—	—	3	—	—	—	1	—	—	—	14	—	—	—	8	—	—
	DM3	18	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	8	—	—	—	9	—	—
	DMSN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Machinist's Mate	MMC	48	49	212	54	5	38	99	56	6	6	186	64	4	10	189	—	6	75	187	59	1	74	101	—
	MM1	48	231	181	117	33	25	178	115	25	1	120	112	12	11	118	101	17	52	121	86	21	92	91	88
	MM2	48	12	48	—	2	31	107	—	5	2	100	87	0	19	—	—	2	105	70	—	1	154	48	—
	MM3	36	9	41	—	3	9	78	—	2	2	71	—	1	0	54	—	2	1	49	—	0	17	—	—
	MMFN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Engineman	ENC	48	26	63	—	0	12	—	—	3	8	116	—	5	10	60	54	0	31	—	—	7	41	68	54
	EN1	48	112	107	70	14	43	89	75	10	26	89	62	16	16	156	85	6	74	75	63	9	96	119	60
	EN2	36	45	74	58	2	53	43	—	4	30	69	47	2	19	88	—	3	81	58	—	13	52	74	57
	EN3	36	33	69	47	3	25	78	—	3	10	91	—	2	3	52	—	0	32	—	—	4	43	60	47
	ENFN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Machinery Repairman	MRC	48	3	—	—	0	0	—	—	0	0	—	—	0	3	—	—	1	1	99	—	0	3	—	—
	MR1	48	4	92	—	0	5	—	—	0	2	—	—	1	2	61	—	0	13	—	—	1	12	68	—
	MR2	36	1	—	—	1	7	59	—	0	3	—	—	0	4	—	—	0	19	—	—	0	36	—	—
	MR3	36	0	—	—	0	3	—	—	0	0	—	—	0	1	—	—	0	2	—	—	0	3	—	—
	MRFN	36	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Boilerman	BTC	48	41	87	71	0	8	—	—	4	6	119	70	3	3	74	—	7	15	244	123	3	11	67	—
	BT1	48	277	130	115	26	9	165	126	28	3	181	111	21	3	165	102	28	20	105	102	30	20	105	101
	BT2	48	36	78	67	9	54	118	101	2	5	186	—	1	14	69	—	4	98	92	66	4	123	97	—
	BT3	48	61	96	87	8	21	93	84	3	2	84	—	10	0	100	96	7	9	194	93	8	1	94	77
	BTFN	48	6	76	—	1	X	60	—	0	X	—	—	1	X	94	—	0	X	—	—	0	X	—	—
Electrician's Mate	EMC	48	16	58	—	1	18	85	—	3	6	88	—	4	15	76	55	1	38	52	—	2	70	66	—
	EM1	48	36	158	—	4	16	115	68	10	8	123	91	6	10	93	86	0	44	—	—	2	70	158	—
	EM2	36	9	50	—	2	40	76	—	0	27	—	—	1	10	36	—	2	65	89	—	1	66	50	—
	EM3	36	7	64	—	1	6	45	—	1	2	64	—	1	1	36	—	0	28	—	—	0	18	—	—
	EMFN	36	1	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
I. C. Electrician	ICC	48	1	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	1	—	—
	IC1	48	3	—	—	2	9	80	—	0	1	—	—	0	4	—	—	0	31	—	—	0	30	—	—
	IC2	36	1	—	—	0	3	—	—	1	1	68	—	0	3	—	—	0	14	—	—	0	20	—	—
	IC3	36	2	—	—	0	13	—	—	2	0	62	—	0	1	—	—	0	1	—	—	0	1	—	—
	ICFN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Metalsmith	MEC	48	5	—	—	0	0	—	—	0	2	—	—	0	2	—	—	0	5	—	—	0	14	—	—
	ME1	48	37	100	56	1	27	100	—	5	3	138	92	3	8	93	—	3	32	83	—	2	31	89	—
	ME2	36	57	75	70	7	5	83	69	1	0	62	—	2	5	69	—	5	6	75	39	8	14	67	57
	ME3	36	31	63	58	3	4	59	—	1	1	59	—	3	0	88	48	1	4	45	—	6	2	63	45
	MEFN	36	3	49	—	0	X	—	—	0	X	—	—	0	X	—	—	1	X	49	—	1	X	100	—
Pipe Fitter	FPC	48	11	60	—	0	1	—	—	2	1	60	—	0	3	—	—	0	4	—	—	3	2	77	—
	FP1	48	66	93	82	9	5	123	82	2	2	108	—	6	5	90	67	4	7	97	55	9	3	131	82
	FP2	36	2	—	—	1	3	46	—	0	0	—	—	0	3	—	—	0	23	—	—	0	17	—	—
	FP3	24	52	54	52	9	4	56	41	3	0	45	—	3	0	44	38	2	2	55	—	8	0	53	46
	FPFN	24	2	30	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MOS. SEA DUTY			
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
0	0	—	—	1	8	72	—	5	49	106	70	0	16	—	—	1	12	71	—	0	13	—	—	0	6	—	—	SH1
0	0	—	—	0	8	—	—	3	49	70	—	4	16	78	55	0	12	—	—	0	13	—	—	0	6	—	—	SH2
1	0	53	—	4	8	51	44	1	49	47	—	2	16	64	—	0	12	45	—	1	13	46	—	0	0	—	—	SH3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	SHSN
1	7	23	—	0	4	—	—	2	10	76	—	2	4	74	—	0	3	—	—	0	3	—	—	0	X	—	—	SH1
0	7	67	—	1	4	80	—	0	10	—	—	2	4	—	—	0	3	—	—	0	3	—	—	0	X	—	—	SH2
0	7	—	—	0	4	—	—	0	10	—	—	0	4	58	—	1	3	—	—	0	3	—	—	0	X	—	—	SH3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	SHSN
0	4	—	—	0	2	—	—	3	3	96	—	1	5	64	—	1	2	93	—	0	6	—	—	0	0	—	—	SH1
0	4	—	—	0	2	—	—	1	3	100	—	0	5	—	—	0	2	—	—	0	6	—	—	0	0	—	—	SH2
0	4	—	—	1	2	44	—	0	3	—	—	0	5	—	—	0	2	—	—	0	6	—	—	0	0	—	—	SH3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	SHSN
4	17	91	72	5	5	120	77	13	54	88	74	6	17	130	75	9	7	83	78	0	9	—	—	1	8	97	—	SH1
2	17	114	—	1	5	74	—	2	54	76	—	0	17	—	—	0	7	—	—	0	9	—	—	0	8	—	—	SH2
0	17	—	—	0	5	—	—	0	54	—	—	1	17	52	—	0	7	—	—	0	9	—	—	0	8	—	—	SH3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	SHSN
0	8	—	—	0	1	—	—	3	16	52	—	2	8	49	—	0	3	—	—	0	5	—	—	0	1	—	—	SHC
—	2	—	—	—	0	—	—	—	4	—	—	—	2	—	—	—	1	—	—	—	0	—	—	—	0	—	—	JOC
—	3	—	—	—	4	—	—	—	6	—	—	—	4	—	—	—	1	—	—	—	3	—	—	—	2	—	—	JO1
—	3	—	—	—	7	—	—	—	5	—	—	—	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	JO2
—	3	—	—	—	10	—	—	—	7	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—	0	—	—	JO3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	JOSN
0	0	—	—	2	0	37	—	0	0	—	—	3	3	47	—	0	0	—	—	0	3	—	—	0	0	—	—	LIC/PIC
0	0	—	—	0	0	31	—	1	6	—	—	1	3	45	—	0	0	—	—	2	2	59	—	0	0	—	—	LI1/PI1
0	0	—	—	1	0	68	—	0	0	—	—	0	4	—	—	0	0	—	—	1	3	75	—	0	0	—	—	LI2/PI2
0	0	—	—	0	0	—	—	0	0	—	—	0	4	—	—	0	0	—	—	1	4	57	—	0	0	—	—	LI3/PI3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	LISN/PISN
—	1	—	—	—	0	—	—	—	7	—	—	—	0	—	—	—	1	—	—	—	1	—	—	—	0	—	—	DMC
—	2	—	—	—	1	—	—	—	9	—	—	—	3	—	—	—	0	—	—	—	8	—	—	—	0	—	—	DM1
—	3	—	—	—	5	—	—	—	6	—	—	—	6	—	—	—	0	—	—	—	10	—	—	—	0	—	—	DM2
—	5	—	—	—	6	—	—	—	7	—	—	—	2	—	—	—	0	—	—	—	12	—	—	—	0	—	—	DM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	DMSN
3	34	62	—	4	27	212	54	4	71	60	53	4	42	94	65	10	19	101	64	2	19	70	—	0	3	—	—	MMC
14	41	96	93	36	37	117	98	41	81	125	101	10	41	99	92	8	11	181	87	5	10	181	56	3	1	108	—	MM1
0	79	—	—	1	53	142	—	0	156	—	—	1	61	65	—	0	12	—	—	0	26	—	—	0	1	—	—	MM2
0	6	—	—	0	4	—	—	0	14	—	—	0	0	—	—	1	3	101	—	0	4	—	—	0	0	—	—	MM3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	MMFN
1	14	54	—	3	12	63	—	2	30	52	—	3	16	56	—	5	11	86	52	0	16	—	—	0	7	—	—	ENC
7	27	115	60	13	17	138	69	11	80	107	71	6	40	146	56	11	29	—	63	4	24	74	54	6	22	90	62	EN1
4	19	64	49	9	16	76	61	7	86	98	47	2	56	55	—	1	49	43	—	0	27	—	—	1	9	41	—	EN2
4	4	62	47	5	5	52	40	3	50	68	—	3	14	48	—	2	23	48	—	1	22	52	—	0	16	—	—	EN3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	ENFN
0	1	—	—	0	4	—	—	2	5	60	—	0	3	—	—	0	0	—	—	0	5	—	—	0	0	—	—	MRC
1	7	66	—	1	7	92	—	0	15	—	—	0	7	—	—	0	0	—	—	0	2	—	—	0	1	—	—	MR1
0	14	—	—	0	24	—	—	0	21	—	—	0	19	—	—	0	5	—	—	0	10	—	—	0	0	—	—	MR2
0	1	—	—	0	2	—	—	0	6	—	—	0	4	—	—	0	0	—	—	0	1	—	—	0	0	—	—	MR3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	MRFN
3	8	87	—	1	8	54	—	8	25	71	58	9	11	209	108	3	5	109	—	0	7	—	—	0	1	—	—	BTC
20	49	113	100	28	21	130	14	44	33	189	119	15	15	114	104	14	3	141	101	7	20	101	91	5	0	89	64	BT1
3	58	66	—	4	39	78	54	2	119	62	—	2	58	101	—	3	12	103	—	1	26	57	—	0	0	—	—	BT2
5	7	91	61	5	0	89	67	2	1	66	—	5	1	94	56	4	4	67	52	3	6	86	—	0	0	—	—	BT3
0	X	—	—	2	X	69	—	0	X	—	—	1	X	72	—	1	X	76	—	0	X	—	—	0	X	—	—	BTFN
0	32	—	—	2	22	121	—	1	48	55	—	0	29	—	—	2	12	67	—	0	21	—	—	0	3	—	—	EMC
1	26	62	—	4	25	98	57	3	45	95	—	2	25	76	—	3	12	98	—	1	15	75	—	0	7	—	—	EM1
0	10	—	—	0	15	—	—	2	76	46	—	0	28	—	—	1	25	41	—	0	20	—	—	0	9	—	—	EM2
0	3	—	—	4	6	102	44	0	17	—	—	0	14	—	—	0	12	—	—	0	16	—	—	0	3	—	—	EM3
0	X	—	—	1	X	38	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	EMFN
0	0	—	—	0	2	—	—	0	3	—	—	1	3	58	—	0	0	—	—	0	0	—	—	0	0	—	—	ICC
0	23	—	—	0	15	—	—	0	24	—	—	1	13	110	—	0	6	—	—	0	4	—	—	0	1	—	—	IC1
0	11	—	—	0	9	—	—	0	16	—	—	0	9	—	—	0	5	—	—	0	6	—	—	0	1	—	—	IC2
0	5	—	—	0	1	—	—	0	2	—	—	0	0	—	—	0	2	—	—	0	0	—	—	0	0	—	—	IC3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	ICFN
1	7	48	—	0	5	—	—	0	23	—	—	1	6	58	—	2	2	70	—	1	3	13	—	0	1	—	—	MEC
1	14	54	—	3	12	99	—	6	32	89	69	4	14	91	52	3	6	86	—	3	4	122	—	1	1	75	—	ME1
7	3	94	71	7	9	91	70	2	20	94	—	5	7	70	48	5	2	88	62	0	1	—	—	0	0	—	—	ME2
4	3	51	—	4	0	44	39	4	15	54	43	1	0	46	—	1	0	62	—	1	2	54	—	0	0	—	—	ME3
1	X	47	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	MEFN
0	0	—	—	2	3	59	—	4	1	197	74	0	2	—	—	0	0	—	—	0	4	—	—	0	0	—	—	FPC
3	27	100	67	3	16	75	55	15	12	106	102	6	5	104	73	2	2	56	—	1	8	74	—	4	2	85	56	FP1
0	8	—	—	0	16	—	—	0	22	—	—	0	10	—	—	0	1	—	—	1	10	41	—	0	3	—	—	FP2
4	0	50	36	7	1	49	44	6	3	53	38	2	0	39	—	2	0	42	—	2	0	41	—	0	1	—	—	FP3
0	X	—	—	2	X	55	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	FPFN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	TOTAL NUMBER MEN ON SDEL	ANYWHERE U. S. MDS. SEA DUTY		1ST ND		MDS. SEA DUTY		3RD ND		MDS. SEA DUTY		4TH ND		MDS. SEA DUTY		5TH ND		MDS. SEA DUTY		6TH ND		MDS. SEA DUTY	
				1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Damage Controlman	DCC	36	21	71	—	0	0	—	—	0	3	—	—	1	2	45	—	0	6	—	—	5	10	172	51
	DC1	36	71	106	69	8	2	96	61	4	2	69	—	1	2	87	—	4	6	50	46	9	22	143	64
	DC2	36	51	123	58	6	8	86	50	5	3	73	47	4	2	84	54	1	10	52	—	5	28	123	47
	DC3	24	17	56	—	2	1	63	—	2	0	56	—	3	3	52	—	2	3	47	—	4	31	59	40
	DCFN	24	5	50	—	1	X	38	—	0	X	—	—	0	X	—	—	1	X	38	—	0	X	—	—
Patternmaker	PMC	48	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	1	—	—	0	0	—	—
	PM1	48	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
	PM2	36	1	—	—	1	0	62	—	0	0	—	—	0	0	—	—	0	1	—	—	0	1	—	—
	PM3	36	1	—	—	0	0	—	—	1	0	46	—	0	0	—	—	0	0	—	—	0	0	—	—
	PMFN	36	1	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Molder	MLC	48	2	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
	ML1	48	1	—	—	1	0	170	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
	ML2	36	3	—	—	1	1	46	—	1	0	52	—	0	0	—	—	0	0	—	—	1	0	48	—
	ML3	36	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
	MLFN	36	0	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—
Surveyor	SVC	18	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	2	—	—	—	0	—	—
	SV1	18	0	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	3	—	—	—	2	—	—
	SV2	18	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	3	—	—	—	2	—	—
	SV3	18	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	4	—	—
	SVCN	18	1	—	—	—	X	—	—	—	X	—	—	1	X	35	—	—	X	—	—	—	X	—	—
Construction Electrician's Mate	CEC	18	0	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	7	—	—	—	7	—	—
	CE1	18	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	10	—	—	—	3	—	—
	CE2	18	1	—	—	1	2	50	—	—	1	—	—	—	0	—	—	—	11	—	—	—	4	—	—
	CE3	18	12	40	32	6	1	42	37	1	0	32	—	1	0	20	—	1	1	25	—	2	6	27	—
	CECN	18	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Driver	CDC	24	3	43	—	1	4	43	—	1	1	64	—	—	3	—	—	—	14	—	—	—	8	—	—
	CD1	24	28	48	45	4	3	116	38	2	0	85	—	—	1	—	—	4	11	48	34	8	13	54	49
	CD2	24	5	67	—	—	5	—	—	1	0	39	—	—	1	—	—	1	7	87	—	1	21	45	—
	CD3	24	23	43	30	3	7	119	—	1	0	30	—	2	2	43	—	3	6	95	—	9	23	43	31
	CDCN	24	4	31	—	1	X	28	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Mechanic	CMC	24	4	—	—	—	2	—	—	1	0	70	—	—	0	—	—	2	8	28	—	1	4	70	—
	CM1	24	5	62	—	2	2	62	—	2	0	66	—	—	0	—	—	1	13	27	—	—	4	—	—
	CM2	24	6	—	—	3	3	47	—	—	0	—	—	—	0	—	—	—	9	—	—	2	6	50	—
	CM3	24	9	38	—	1	4	35	—	—	0	—	—	1	0	48	—	—	12	—	—	2	6	33	—
	CMCN	24	0	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Builder	BUC	24	19	61	43	3	3	60	—	—	0	—	—	2	0	59	—	2	11	39	—	6	8	16	38
	BU1	24	3	—	—	2	7	47	—	—	0	—	—	—	3	—	—	—	21	—	—	—	14	—	—
	BU2	24	8	43	29	1	3	43	—	2	0	63	—	—	0	—	—	—	33	—	—	2	11	29	—
	BU3	24	25	62	35	9	4	74	35	2	0	62	—	1	0	29	—	3	10	35	27	4	6	29	—
	BUCN	24	1	33	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	33	—	—	X	—	—
Steel Worker	SWC	24	14	161	52	2	2	43	—	—	0	—	—	—	0	—	—	2	0	38	—	4	1	63	—
	SW1	24	6	67	—	1	1	48	—	—	0	—	—	—	0	—	—	—	1	—	—	2	3	45	—
	SW2	24	6	42	38	1	2	69	—	—	0	—	—	—	0	—	—	1	3	38	—	—	8	—	—
	SW3	24	2	41	—	—	1	—	—	—	0	—	—	—	0	—	—	—	4	—	—	1	2	41	—
	SWCN	24	2	56	—	1	X	56	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	46	—
Utilities Man	UTC	18	6	75	26	1	1	23	—	—	0	—	—	—	1	—	—	—	7	—	—	1	6	75	—
	UT1	18	5	79	—	—	2	—	—	—	0	—	—	—	0	—	—	—	3	—	—	1	5	87	—
	UT2	18	8	94	40	1	2	65	—	—	0	—	—	—	0	—	—	2	3	31	—	2	6	40	—
	UT3	18	17	32	31	4	1	46	24	—	0	—	—	—	0	—	—	1	3	31	—	6	8	32	30
	UTCN	18	1	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	50	—
Steward	SDC	36	31	211	—	—	13	—	—	—	5	—	—	—	10	—	—	—	20	—	—	—	39	—	—
	SD1	36	142	128	—	3	20	48	—	15	8	107	76	16	15	92	79	16	17	74	67	1	65	49	—
	SD2	36	97	121	64	6	18	123	43	18	4	124	97	12	14	101	70	2	27	117	—	—	91	—	—
	SD3	36	82	65	44	12	22	61	57	26	5	124	108	22	15	109	78	—	30	—	—	3	117	65	—
	TN	24	20	44	32	1	101	36	—	3	27	120	—	—	49	—	—	3	91	86	—	4	385	35	24
Aviation Machinist's Mate	ADC	24	189	51	42	27	19	165	91	7	3	98	49	13	27	112	55	8	22	111	69	32	184	141	102
	AD1	24	132	71	31	13	43	70	56	6	6	52	46	16	48	62	55	3	45	37	32	43	347	163	93
	AD2	24	31	—	—	1	60	67	—	4	5	62	33	4	72	118	35	4	58	101	37	2	514	93	—
	AD3	18	25	47	—	2	73	22	—	3	4	30	—	3	92	146	—	0	69	—	—	3	693	30	—
	ADAN	18	4	—	—	0	X	—	—	0	X	—	—	0	X	—	—	1	X	25	—	0	X	—	—
Aviation Electronics Technician	ALC/ATC	24	50	62	45	5	10	103	47	1	3	46	—	8	8	123	93	2	5	94	—	4	49	77	—
	AL1/AT1	24	40	48	—	8	17	86	48	2	3	46	—	8	23	91	70	0	18	—	—	0	98	41	—
Aviation Electronicsman	AL2/AT2	18	11	45	—	2	25	33	—	2	1	121	—	2	24	92	—	1	24	84	—	1	143	45	—
	AL3/AT3	18	11	22	—	1	34	25	—	1	3	32	—	2	30	23	—	1	33	22	—	1	185	51	—
	ALAN/ATAN	18	0	—	—	0	X	—	—	0	X	—	—	7	X	—	—	0	X	—	—	4	X	—	—
Aviation Ordnanceman	AOC	24	65	86	—	1	4	62	—	0	0	—	—	3	6	104	—	3	9	98	—	15	27	243	95
	AO1	24	80	62	44	10	7	70	62	10	0	—	—	0	5	122	89	0	13	72	—	0	42	133	84
	AO2	24	65	67	45	4	13	48	38	1	0	68	—	7	6	92	54	0	17	—	—	9	50	67	51
	AO3	18	48	91	31	6	17	55	23	2	0	37	—	8	9	63	42	2	22	113	—	6	86	91	31
	AOAN	18	6	—	—	1	X	35	—	0	X	—	—	1	X	36	—	0	X	—	—	1	X	22	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MOS. SEA DUTY				MDS. SEA DUTY		
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH WAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
2	4	50	—	0	9	—	—	7	8	76	53	0	9	69	—	4	2	86	44	0	9	—	—	0	4	—	—	DCC
9	7	82	51	3	10	51	44	14	8	106	74	3	8	53	—	1	6	72	—	4	6	58	54	3	8	69	—	DC1
3	12	55	—	7	13	72	55	7	15	64	52	6	5	57	47	2	7	53	—	1	12	106	—	2	10	48	—	DC2
0	9	—	—	2	4	40	—	0	19	—	—	0	10	—	—	0	2	—	—	1	14	35	—	0	8	—	—	DC3
1	X	46	—	2	X	50	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	DCFN
0	0	—	—	0	0	—	—	0	4	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	PMC
0	0	—	—	0	0	—	—	0	1	—	—	0	0	—	—	0	0	—	—	0	1	—	—	0	0	—	—	PM1
0	1	—	—	0	0	—	—	0	3	—	—	0	1	—	—	0	1	—	—	0	0	—	—	0	0	—	—	PM2
0	3	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	PM3
0	X	—	—	1	X	52	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	PMFN
0	0	—	—	0	7	—	—	2	1	98	—	0	2	—	—	0	0	—	—	0	0	—	—	0	0	—	—	MLC
0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	ML1
0	0	—	—	0	0	—	—	0	2	—	—	0	4	—	—	0	0	—	—	0	0	—	—	0	0	—	—	ML2
0	0	—	—	0	0	—	—	0	2	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	ML3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	MLFN
1	0	64	—	—	0	—	—	—	4	—	—	—	1	—	—	—	0	—	—	—	1	—	—	—	0	—	—	SVC
—	1	—	—	—	0	—	—	—	5	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV1
—	2	—	—	—	1	—	—	—	3	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV2
—	1	—	—	—	1	—	—	—	7	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SVCN
—	4	—	—	—	8	—	—	—	10	—	—	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	CEC
—	3	—	—	—	6	—	—	—	12	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	CE1
—	3	—	—	—	1	—	—	—	13	—	—	—	1	—	—	—	1	—	—	—	0	—	—	—	0	—	—	CE2
—	4	—	—	—	1	—	—	—	28	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	CE3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	CECN
—	9	—	—	—	2	—	—	1	19	29	—	—	4	—	—	—	3	—	—	—	1	—	—	—	0	—	—	CDC
2	12	37	—	6	2	58	43	—	22	—	—	2	3	76	—	—	3	—	—	—	2	—	—	—	0	—	—	CD1
1	18	67	—	—	4	—	—	—	31	—	—	1	6	61	—	—	4	—	—	—	3	—	—	—	0	—	—	CD2
—	22	—	—	3	5	34	—	—	45	—	—	—	7	—	—	2	5	28	—	—	13	—	—	—	0	—	—	CD3
1	X	24	—	1	X	27	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	31	—	—	X	—	—	CDCN
—	5	—	—	—	7	—	—	—	9	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	CMC
—	5	—	—	—	1	—	—	—	16	—	—	—	2	—	—	—	1	—	—	—	0	—	—	—	0	—	—	CM1
—	8	—	—	—	2	—	—	—	25	—	—	—	3	—	—	1	0	30	—	—	0	—	—	—	0	—	—	CM2
—	12	—	—	2	2	63	—	1	31	30	—	1	3	38	—	—	1	—	—	—	0	—	—	1	0	37	—	CM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	CMCN
—	4	—	—	—	4	34	—	2	13	61	—	1	3	30	—	1	1	43	—	—	0	—	—	—	0	—	—	BUC
—	8	—	—	—	7	—	—	—	21	—	—	—	9	—	—	1	2	40	—	—	0	—	—	—	0	—	—	BU1
—	9	—	—	2	10	33	—	1	32	27	—	—	10	—	—	—	0	—	—	—	0	—	—	—	0	—	—	BU2
—	7	—	—	2	1	29	—	1	58	22	—	—	2	—	—	—	0	—	—	3	0	35	—	—	0	—	—	BU3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	BUCN
—	0	—	—	—	0	—	—	4	3	115	36	2	1	161	—	—	0	—	—	—	0	—	—	—	0	—	—	SWC
1	1	67	—	—	10	—	—	2	11	59	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SW1
1	2	38	—	2	4	38	—	1	17	42	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SW2
—	2	—	—	—	2	—	—	—	31	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SW3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SWCN
—	2	—	—	1	2	26	—	2	8	30	—	—	5	—	—	—	1	—	—	—	0	—	—	—	0	—	—	UTC
1	4	26	—	1	5	28	—	2	8	79	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	UT1
—	4	—	—	1	2	94	—	1	10	38	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	UT2
2	6	30	—	3	3	30	—	—	18	—	—	—	1	—	—	—	1	—	—	—	0	—	—	—	0	—	—	UT3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	UTCN
—	14	—	—	—	9	—	—	30	17	211	93	1	15	70	—	—	7	—	—	—	19	—	—	—	8	—	—	SDC
1	26	54	—	3	14	54	—	48	31	212	81	26	20	217	94	4	10	128	44	4	16	53	44	2	11	47	—	SD1
—	35	—	—	7	23	61	56	20	44	120	81	16	23	188	79	9	8	168	57	5	15	125	43	3	6	66	—	SD2
—	43	—	—	3	25	75	—	3	51	119	—	9	24	120	49	5	7	124	60	3	18	117	—	1	5	62	—	SD3
2	144	35	—	1	99	40	—	4	156	44	29	1	96	28	—	—	29	—	—	—	68	—	—	1	345	28	—	TN
3	136	74	—	6	83	115	37	34	52	150	84	38	31	157	91	15	2	226	88	0	84	—	—	3	7	91	—	ADC
1	270	34	—	4	159	171	34	10	96	90	39	24	54	119	74	9	5	80	56	2	144	26	—	2	6	131	—	AD1
0	406	—	—	7	233	63	43	0	127	—	—	8	66	88	58	1	8	44	—	0	185	—	—	0	10	—	—	AD2
0	541	—	—	6	312	47	27	1	187	45	—	1	86	29	—	4	6	30	25	1	260	38	—	1	13	49	—	AD3
0	X	—	—	0	X	—	—	0	X	—	—	2	X	90	—	1	X	25	—	0	X	—	—	0	X	—	—	ADAN
—	34	—	—	1	20	165	—	6	44	55	49	7	6	112	67	8	1	94	68	1	40	62	—	1	1	89	—	ALC/ATC
3	69	94	—	0	46	55	—	3	55	55	—	8	13	141	87	7	2	143	76	2	46	89	—	1	2	81	—	AL1/AT1
2	103	31	—	0	62	—	—	0	76	—	—	0	17	—	—	1	3	54	—	0	58	—	—	0	4	—	—	AL2/AT2
1	137	20	—	1	83	44	—	0	94	—	—	0	24	—	—	2	3	101	—	1	69	—	—	1	5	—	—	AL3/AT3
0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	0	X	—	—	ALAN/ATAN
2	18	142	92	1	2	143	35	5	13	148	—	12	6	86	—	11	0	176	86	0	17	—	—	0	0	—	—	AOC
0	35	94	—	0	5	92	—	0	34	75	44	0	9	75	69	0	2	130	75	0	27	48	28	0	0	—	—	AO1
5	52	48	33	6	8	75	51	2	44	59	—	0	13	—	—	6	3	99	—	0	25	89	—	0	0	—	—	AO2
4	68	44	—	4	9	34	31	4	53	36	27	5	22	51	29	3	4	62	—	1	32	22	—	0	1	—	—	AO3
0	X	—	—	1	X	43	—	0	X	—	—	2	X	90	—	0	X	—	—	0	X	—	—	0	X	—	—	AOAN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	TOTAL NUMBER MEN ON SDEL	ANYWHERE U. S. MDS. SEA DUTY		1ST ND		MOS. SEA DUTY		3RD ND		MDS. SEA DUTY		4TH ND		MOS. SEA DUTY		5TH ND		MOS. SEA DUTY		6TH ND		MOS SEA DUTY	
				1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Aviation Boatswain's Mate	ABC	24	14	54	—	1	3	33	—	0	0	—	—	6	14	57	48	0	7	—	—	4	18	50	27
	AB1	24	45	67	49	4	2	68	42	3	0	66	—	6	25	60	46	1	12	45	—	10	31	90	60
	AB2	24	17	102	67	1	3	31	—	0	1	—	—	4	39	92	42	1	14	102	—	1	42	56	—
	AB3	18	24	96	25	1	4	33	—	1	0	31	—	5	58	56	23	0	21	—	—	4	62	91	44
	ABAN	18	2	—	—	2	X	34	—	1	X	—	—	7	X	—	—	0	X	—	—	2	X	33	—
Aviation Electrician's Mate	AEC	24	19	51	—	2	3	140	—	1	0	118	—	4	4	79	47	0	6	—	—	2	39	45	—
	AE1	24	24	39	—	2	8	83	—	1	0	36	—	6	8	91	51	1	6	98	—	2	78	52	—
	AE2	18	7	28	—	2	11	38	—	1	2	34	—	1	11	34	—	0	10	—	—	1	108	25	—
	AE3	18	12	24	—	1	14	25	—	1	1	25	—	1	12	25	—	1	14	25	—	2	145	23	—
	AEAN	18	4	—	—	0	0	—	—	0	0	24	—	2	0	—	—	0	0	—	—	0	0	—	—
Aviation Structural Mechanic	AMC	24	52	30	—	3	4	88	—	1	1	167	—	4	10	83	28	3	6	107	—	3	103	72	—
	AM1	24	50	27	—	10	11	92	61	2	1	56	—	10	16	99	55	2	15	46	—	8	197	90	62
	AM2	18	13	—	—	4	18	82	46	0	1	—	—	2	22	41	—	0	19	—	—	0	303	—	—
	AM3	18	20	42	22	2	25	43	—	0	0	—	—	3	33	52	—	0	24	—	—	2	395	52	—
	AMAN	18	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
Parachute Rigger	PRC	24	0	—	—	0	3	—	—	0	0	—	—	0	5	—	—	0	3	—	—	0	19	—	—
	PR1	24	9	45	—	0	2	—	—	1	0	71	—	1	3	64	—	0	3	—	—	0	29	—	—
	PR2	18	8	88	—	0	2	—	—	1	0	27	—	0	1	—	—	1	2	33	—	0	39	—	—
	PR3	18	3	—	—	1	5	62	—	2	0	91	—	0	10	—	—	0	4	—	—	0	68	—	—
	PRAN	18	2	—	—	0	0	—	—	0	0	—	—	1	0	26	—	0	0	—	—	0	0	—	—
Aviation Storekeeper	AKC	24	5	—	—	0	5	—	—	1	1	113	—	0	9	—	—	0	9	—	—	0	26	—	—
	AK1	24	11	49	—	1	10	82	—	0	1	—	—	2	17	60	—	0	15	—	—	0	46	—	—
	AK2	18	5	—	—	1	15	24	—	0	1	—	—	0	21	—	—	0	24	—	—	0	62	—	—
	AK3	18	7	45	—	0	16	—	—	0	2	—	—	1	35	21	—	1	30	27	—	0	87	—	—
	AKAN	18	2	26	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
Photographer's Mate	PHC	24	0	—	—	0	3	—	—	0	2	—	—	0	6	—	—	0	6	—	—	0	10	—	—
	PH1	24	8	—	—	0	4	—	—	2	3	69	—	1	12	39	—	1	16	31	—	2	23	94	—
	PH2	18	1	—	—	0	4	—	—	0	3	—	—	0	8	—	—	0	17	—	—	0	37	—	—
	PH3	18	10	32	22	2	4	25	—	1	4	23	—	1	17	23	—	0	21	—	—	0	49	—	—
	PHAN	18	1	—	—	1	0	43	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—
Airman	AN	24	8	37	—	1	438	47	—	1	17	30	—	0	396	—	—	0	558	—	—	1	3614	37	—
Hospital Carpsman	HMC	18	206	30	26	10	82	30	27	3	77	21	—	1	86	23	—	2	157	24	—	38	172	39	31
	HM1	18	220	31	28	23	91	38	31	5	76	26	25	14	67	40	27	4	203	26	20	33	187	34	31
	HM2	18	← NO WAITING LIST →																						
	HM3	18	← NO WAITING LIST →																						
	HN	18	← NO WAITING LIST →																						
	HA	18	← NO WAITING LIST →																						

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs. NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 6—Announces effective date of certain price lists.

No. 7—Is concerned with the issuance and entitlement of flight rations.

No. 8—Stated that ComServPac would assume Pacific Fleet enlisted distribution function for a limited trial period.

No. 9—Stated that the Navy would no longer be able to renew individual National Service Life Insurance Policies.

Instructions

No. 1080.14A—Establishes a military obligation designator for enlisted personnel under certain conditions and promulgates effective branch and class of service abbreviations for administrative purposes.

No. 1120.25—Invites applications for flight training as Aviation Officer Candidates from eligible active duty enlisted personnel and publishes procedure for submission of applications.

No. 1326.2—Institutes procedures in connection with straight-line transfers whereby enlisted personnel en route from overseas to new duty stations in continental United States may by-pass coastal and other intermediate reporting stations.

No. 1520.5C—States that ensigns and lieutenants (junior grade) commissioned as line officers from NROTC units, but not yet selected for retention in a career status, are eligible for courses of instruction and change in designator from line to restricted line or staff.

No. 1520.6G — Provides information concerning applications from USN and USNR line officers on active duty for the submarine school classes convening semi-annually during the first week in January and June.

No. 1742.2A—Outlines the duty and obligation of all commands to provide personnel of the Armed Forces with assistance in the exercise of their voting privilege as provided by the Federal Voting Assistance Act of 1955 (Public Law 296, 84th Congress).

No. 1820.1A — Provides information concerning nondisability retire-

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MDS. SEA DUTY				MDS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MDS. SEA DUTY			
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	1TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
0	10	—	—	0	3	—	—	1	10	43	—	1	6	30	—	1	0	121	—	0	11	—	—	0	1	—	—	ABC
3	19	38	—	4	4	102	33	5	15	67	46	3	11	56	—	1	1	51	—	0	27	—	—	1	0	—	—	AB1
0	27	—	—	3	6	96	—	2	16	54	—	3	19	67	—	1	0	68	—	0	26	—	—	0	1	—	—	AB2
0	39	—	—	7	13	57	35	2	28	28	—	2	24	96	—	0	0	—	—	0	31	—	—	1	1	66	—	AB3
0	X	—	—	1	X	—	—	2	X	—	—	7	X	—	—	2	X	—	—	0	X	—	—	0	X	—	—	ABAN
0	29	—	—	1	12	53	—	2	12	63	—	5	6	68	58	2	0	58	—	0	14	—	—	0	1	—	—	AEC
2	60	38	—	2	28	37	—	1	24	49	—	2	7	51	—	2	1	53	—	3	23	91	—	0	1	—	—	AE1
2	88	34	—	0	37	—	—	0	36	—	—	0	12	—	—	0	0	—	—	0	37	—	—	0	1	—	—	AE2
1	115	24	—	3	51	25	—	1	36	45	—	0	17	—	—	0	1	—	—	1	35	24	—	0	1	24	—	AE3
0	0	24	—	0	0	—	—	0	0	—	—	0	0	32	—	1	0	—	—	0	0	—	—	0	0	—	—	AEAN
0	75	—	—	2	33	57	—	11	25	87	49	18	13	215	107	4	1	100	30	1	19	28	—	1	2	65	—	AMC
0	152	—	—	3	66	53	—	4	62	83	30	8	24	49	44	6	1	116	80	1	38	42	—	0	4	—	—	AM1
1	229	49	—	1	96	35	—	0	77	—	—	3	42	45	—	2	1	48	—	0	51	—	—	0	5	—	—	AM2
1	309	22	—	7	128	54	30	0	110	—	—	3	49	56	—	2	1	89	—	1	63	22	—	0	7	—	—	AM3
0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	AMAN
0	9	—	—	0	3	—	—	0	8	—	—	0	4	—	—	0	1	—	—	0	4	—	—	0	1	—	—	PRC
0	18	—	—	1	5	42	—	1	10	78	—	4	1	53	47	0	0	—	—	1	9	45	—	0	1	—	—	PR1
0	25	—	—	1	9	43	—	2	14	88	—	2	2	68	—	0	0	—	—	0	10	—	—	1	1	157	—	PR2
0	32	—	—	0	13	—	—	0	20	—	—	0	7	—	—	0	1	—	—	0	15	—	—	0	2	—	—	PR3
0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	1	0	62	—	0	0	—	—	0	0	—	—	PRAN
0	12	—	—	0	3	—	—	0	15	—	—	2	7	77	—	2	1	51	—	0	14	—	—	0	1	—	—	AKC
0	22	—	—	4	6	52	33	2	26	36	—	2	16	49	—	0	1	—	—	0	17	—	—	0	1	—	—	AK1
0	32	—	—	2	9	74	—	0	39	—	—	2	23	43	—	0	2	—	—	0	21	—	—	0	2	—	—	AK2
1	39	45	—	2	13	22	—	2	51	53	—	0	31	—	—	0	3	—	—	0	25	—	—	0	2	—	—	AK3
0	0	—	—	0	0	—	—	1	0	26	—	0	0	—	—	1	0	55	—	0	0	—	—	0	0	—	—	AKAN
0	5	—	—	0	2	—	—	0	8	—	—	0	3	—	—	0	1	—	—	0	47	—	—	0	2	—	—	PHC
1	11	31	—	1	4	34	—	0	20	—	—	0	8	—	—	0	4	—	—	0	83	—	—	0	1	—	—	PH1
0	12	—	—	1	3	41	—	0	28	—	—	0	7	—	—	0	2	—	—	0	114	—	—	0	1	—	—	PH2
0	12	—	—	1	6	51	—	1	41	26	—	1	12	53	—	1	0	32	—	2	165	29	—	0	2	—	—	PH3
0	0	—	—	0	1	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	0	0	—	—	PHAN
2	1946	53	—	0	779	—	—	1	1242	29	—	2	698	46	—	0	51	—	—	0	1066	—	—	0	74	—	—	AN
12	61	60	29	7	133	31	24	66	173	41	40	30	103	42	37	17	42	32	31	4	129	24	20	0	11	—	—	HMC
12	48	33	29	16	84	43	26	25	252	31	29	16	125	33	30	16	40	47	37	7	141	37	23	1	15	18	—	HM1
NO WAITING LIST																												HM2
NO WAITING LIST																												HM3
NO WAITING LIST																												HN
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ment of Naval Reserve officers and enlisted personnel.

Notices

No. 1213 (28 Feb)—Stated that inclusion of qualification codes on officers' change of duty orders have been discontinued.

No. 1440 (28 Feb) — Announced change in rating structure affecting Naval Reserve and Fleet Reserve personnel on active duty in the ratings of Aviation Machinist's Mate E, Aviation Machinist's Mate G and Aviation Machinist's Mate F.

No. 1210 (12 Mar)—Invited applications from permanently commissioned USN line officers not above the grade of lieutenant, who have completed a minimum of one year of active duty, for transfer to the Civil Engineer Corps, USN.

No. 1321 (14 Mar) — Reminded commands that requests for renewal of orders to duty involving flying as naval aviation observers and technical observers must be received at the Bureau in sufficient time for processing, reissuance and receipt of orders before the next fiscal year commences.

No. 1430 (14 Mar) — Changed BuPers Inst. 1430.7A in order to provide for the issuance of permanent appointment to chief petty officers, acting appointment, who have completed three years' satisfactory service and for issuing permanent appointments to chief petty officers, acting appointment, who have completed one year's satisfactory service at the time of their transfer to inactive duty in the Fleet Reserve.

No. 1531 (14 Mar) — Requested nomination of candidates for assignment to the Naval Preparatory School, Bainbridge, Md.

No. 1223 (20 Mar)—Announced certain approved changes to the enlisted rating structure.

Kansas Goes Navy By the Battalion

When the Navy recruiters in Kansas went out to recruit a "Kansas Company," they were hardly prepared for what would happen. In less than two weeks' time after the announcement was made, the single company had grown to battalion size.

In one day, 150 young men from Kansas were sworn in by the Officer-in-Charge, Kansas Recruiting District. On the basis of four-year enlistments, this Kansas group represents a total of 600 volunteer "man years" of naval service.

After final goodbyes to their relatives and friends who witnessed the swearing-in ceremonies, the battalion of embryo sailors boarded four airplanes for the air trip to San Diego and the never-to-be-forgotten recruit training.

BOOKS: PAST AND FUTURE MEET IN THIS MONTH'S SELECTIONS

YOU'LL FIND A SKILLFUL blending of the past and future in this month's choice of titles selected by the Bureau of Naval Personnel library staff. In your ship or station library you'll find new subject matter ranging from guided missiles and current research problems to the early development of sailing vessels by the Phoenicians and Egyptians and their predecessors.

In ***Guided Missiles In War and Peace,*** by Nels A. Parson, Jr., you'll find a "technical briefing" which covers the importance of this latest of weapons and explains its purpose as well as its construction. A short history of guided missiles takes in the advances in World War II. There is an explanation of air to surface, air to air, surface to air and surface to surface missiles together with the anti-missile guided missile developments. The aerodynamics, guidance and propulsion are described, and warfare use by Navy, Air Force and Army is discussed. Also, non-military applications of current research for faster, safer travel and space exploration are projected. This survey of "bullets with brains" makes it possible for any Navyman to learn how they work—and why.

The Mighty Force of Research by the editors of *Fortune* is based upon a series of questionnaires and surveys by that magazine, and examines the various objects of present day research. An introductory chapter points out the lags in fundamental, basic research, the areas in which government, industry and education have made advances, and the prospect of research for its own sake. There is a cross section on the young scientists and a review of the long-range planners. The reasons for fewer and fewer independent inventors are reviewed.

Man Under the Sea, by James Dugan, may be more to your taste. It's an enormous package deal on all underwater exploits and activities. From mythology and primitive man right up to the atomic age, this follows "hydronauts" and their developments in all techniques. Salvage and treasure hunting, submarines and television, engineering, geology and archeology, moving pictures and cave diving, biology and photography, dynamiting and demolition, oil and underseas farming—all these subjects, illustrated with photographs and line drawings, are combined to make an almost encyclopedic coverage of the field.

With Jean de la Varende in ***Cherish the Sea*** you may travel with the Vikings and join in the Norman conquest, embark for the Crusades, hoist the Jolly Roger with Arab pirates as they trade cunningly with cargo and captives, participate in the rivalry between Venice and Genoa and voyage with the great explorers of Portugal. If that isn't enough, the author tells you of the vessels of the Hindus and the Chinese and describes in detail five major naval engagements of history —Salamis, Actium, Lepanto, the Spanish Armada and Trafalgar. He also discusses personalities such as Barbarossa, Nelson and Columbus.

Zero, by Masatake Okumiya and Jiro Horikoshi is something else again. It's straight World War II history described through the medium of Japanese air power, especially the *Zero*. It was this plane, cocky, flimsy, and essential to the whole Japanese war effort that was the principal instrument of Japan's conquest, and which provided the best flying force in the Pacific until a U. S. plane caught up to it. The authors, both leaders in Japanese aviation, follow the history of the plane from factory to battle and finally, to the last desperate production of Kamikaze weapons.

Another phase of history is covered by Fletcher Pratt's ***Civil War on Western Waters.*** By "Western Waters" the author refers to the Mississippi and its tributaries in the reaches below Kentucky and, to a lesser extent, the Red River. This is the story of the struggle to gain control of that area. The outcome depended on Union strategy—the concept that the rivers were highways and must be defended by amphibious operations and cooperation between shore and naval forces. The Confederate view that river forts held the answer and that defense was the strategy, compounded with shortages, lack of a sense of urgency, and conflict in command, combined to bring defeat.

Nevertheless, the Confederacy had its moments of victory. The book tells of the costly victory of Shiloh, how Vicksburg held the siege longer than expected, how guerrillas on land and river took their toll, and how the "small" war of the tributaries revived and collapsed again. However, Grant with the aid of the gunboats, won the war of the Western Waters.

In the field of fiction, John Hersey has chosen a new locale as the scene for his latest book. In ***A Single Pebble*** he tells of a young American engineer who has but one goal in mind —the harnessing of the Yangtse River. He ships upriver to see for himself where a dam could best be placed. This is the story of that journey and how he came to realize the vast gulf between himself and the crew of the junk on which he traveled. He is left with the realization that time would perhaps supply the answer and that superstition and dedication to the traditional ways of the past would slowly change.

SONGS OF THE SEA

A Sailor's Life for Me

I am a brisk and sprightly lad,
But just come home from sea, sir.
Of all the lives I ever led,
A sailor's life for me, sir.
Yeo, yeo, yeo,
Whilst the boatswain pipes all hands,
With a yeo, yeo, yeo!
What girl but loves the merry tar,
We o'er the ocean roam, sir.
In every clime we find a port,
In every port a home, sir.
Yeo, yeo, yeo,
Whilst the boatswain pipes all hands,
With a yeo, yeo, yeo!

Taking up the Mines

Even before the end of World War I was clearly in sight, it was recognized that one of the most seriously urgent duties of reconstruction would be to clear the seas of mines. Few dangers more treacherous jeapordize the safety of ships and the lives of mariners in time of peace, for, aside from the actual areas in which mines had been laid, there was the additional danger from thousands breaking adrift and, carried by the wind and currents, infesting the neighboring waters for miles around.

The North Sea barrage was a major problem, for here alone were concentrated over 70,000 American and British mines. Of these over 80 per cent had been laid by the United States Navy, and, aside from the huge number, the American mine presented almost insurmountable difficulties from a standpoint of sweeping on account of its novel type and sensitive firing device.

THERE WAS NO KNOWN METHOD of sweeping the mines which the United States had laid. Built on an entirely new principle, these had made the construction of the North Sea barrage possible, for a long antenna stretching up above the mine enabled it to do the work for which three or four had previously been required. Now this same feature became our greatest problem.

With the uppermost end of the antenna at an average of 8 to 10 feet below the surface of the water, it was impossible for a steel vessel to pass over and strike the mines without exploding them. A piece of iron or steel no larger than a nail was sufficient to operate the delicate firing mechanism. None but wooden vessels would be safe in such a mine field, and then only provided that no metal projections, however small, were exposed on the hull of the ship. Another handicap to be considered was the distance (3,000 miles) of the operating base from our coast.

A possible solution for protecting vessels in the mine fields had been suggested by Ensign D. A. Nichols, USNRF [Force] who had acted as the staff assistant communication officer during the minelaying operations. The suggestion consisted of an electrical scheme for blowing up the mines as they came within a given radius of a vessel. If the radius could be made sufficiently large, it would be possible to explode all mines before the sweeping vessels approached close enough to be damaged by the explosion.

Tests showed that although the scheme was sound in principle, the distance at which the mines could be exploded was far too small to enable it to be used without constructing a large elaborate electrical installation for the ships, which rendered the scheme prohibitive.

No sooner had this experiment been carried out when the solution, which later became the salvation of the ships which did the work, automatically suggested itself.

From The Northern Barrage (Taking Up the Mines), prepared by the Historical Section, Office of Naval Records and Library, Navy Department. Published by the Government Printing Office, Washington, D. C. 1920.

SMOKE TRAIL follows *USS Bobolink* as she makes sweep. Her CO was killed by explosion of fouled mine.

It consisted merely in reversing the principle of exploding the mines at a distance so that when they were struck by a ship, they would be prevented from exploding. [So far as is known, this was the first application of the principle of "degaussing."—ED.]

During the early part of December [1918] every conceivable test was carried out in order to prove conclusively that no false assumption had been made, but every test proved the application was fundamentally sound and thoroughly effective. Not only did the scheme prevent the mines from firing which were actually struck by a ship, but also a partial effect was produced on the mines within a radius of many feet around the vessel's hull, which rendered them less susceptible to firing.

Not only did this solution make it possible to use powerful steel vessels, but it enabled us to use our own craft instead of calling upon the British Government to furnish vessels to do the work which we had promised to perform. The new American minesweepers which had been placed under construction during the war were now being completed in rapidly increasing numbers and were of a type admirably suited for the work which we had to undertake.

THE NORTH SEA WEATHER is notoriously bad throughout the year, but particularly so in the winter months. This, coupled with the few short hours of daylight, makes operations such as sweeping nearly impossible for seven months of the year. If the barrage were to be completely cleared during the coming summer of 1919 —and it was most important that it should be—every possible moment must be utilized. Five months had been required to lay the mines, but the task of removing them was, by its very nature, infinitely more exacting.

While the electric protective device was being developed, preparations were under way for an experiment of a totally different nature. Ever since the first mines had been laid, there had been no means of telling the effectiveness of the barrage nor how well the mines had survived the frequent storms.

Many had exploded shortly after having been laid; others had broken adrift and been discovered on the coast of Norway. There was also a possibility that the batteries which fired the mines had not survived as was intended. It was now more essential than ever to determine the actual condition of the mines before sweeping operations began. Arrangements were made to borrow two wooden sailing vessels, man them with volunteers, and cross the mine field with a sweep wire between them to find out what percentage of the mines were still in place and effective.

THE TWO FISHING SMACKS *Red Fern* and *Red Rose* arrived at Inverness the latter part of November. They were hauled out upon the ways, the seams calked, nail heads driven in, the metal parts sheathed with wood, and then a heavy coating of tar applied—all to prevent mines from exploding when in contact with the hull.

Additional billets were fitted to accommodate a crew of 10 men on each vessel, the rigging was overhauled and on December 22, 1918, these tiny craft, in tow of USS *Patapsco* and *Patuxent,* set out for the barrage. Lieutenant Noel Davis, USN, was in command of the expedition and *Red Rose;* Lieutenant (junior grade) Olaf Maatson, USNRF commanded *Red Fern.*

Patapsco and *Patuxent,* after reaching the southern edge of the mine field, were to stand by while experiments were being undertaken, then render assistance if necessary when the vessels again were off the field.

The next morning found them a few miles to the southward of the first line of mines in the central portion of the barrage. Shortly after sunrise the smacks spread sail, stood up to each other, passed sweep and set course to cross the field of mines.

It was a pretty sight to see these little craft sailing back and forth across the mine field, wearing and tacking in unison, and keeping station on each other by furling topsails or streaming sea anchors.

A few minutes before noon, as the vessels crossed the first line of invisible mines, a giant column of discolored water sprang high into the air close astern of *Red Rose.* The first mine in the North Sea barrage had been swept. Separated as it was from that vessel by only a short length of manila rope, which insulated the sweep wire from her stern, the tremendous shock of the explosion all but crushed the wooden hull of the vessel; water spurted in between the timbers in countless places; the pump was started at once, but was barely sufficient to keep her dry.

In all, the lines of mines were crossed four times; six of the upper level mines were exploded, a negligible number, of course, when compared with the 56,000 mines which had been laid, but it had proved conclusively that the mines were still there, ready to explode upon the slightest contact, and that every possible precaution must be used in the forthcoming operations to guard the lives of the men who would be required to sweep the mines.

ON THE 20TH of March *Patapsco* and *Patuxent,* with Capt. R. C. Bulmer, USN, in command, set out for the barrage to make the first real experiments with the actual gear which was intended to be used in the sweeping operations to follow. Two days later the two vessels passed sweep at the western end of a group of mines and commenced to zigzag to the eastward along this group. The sweep was regulated to cut the upper and middle level mines adrift and to explode the lower level mines by touching their antennae.

No sooner had the vessels, entered the mine field than the first mine was exploded. The sweeping continued without interruption or serious casualty for several hours. The weather was rough and observations were difficult, but nevertheless mines could be seen rising to the surface astern of the sweep after they had been sawed from their moorings.

Just before reaching the eastern end of the group one mine was exploded in the center of the sweep and almost simultaneously several others exploded in the near vicinity. One was an upper level mine fairly close aboard on the port quarter of *Patapsco;* two others were

lower level mines whose position at the instant could not be determined.

Almost immediately following this series of explosions clouds of black smoke began to pour from the funnels of *Patuxent* as a widening slick of brown water, marking the explosion of a lower level mine, spread out around her.

The mine exploded by the sweep wire had countermined these others, one of which had been directly underneath *Patuxent*.

Lights throughout the vessel were broken by the shock of the explosion, the floor plates in the firerooms thrown from the deck, and other minor casualties throughout the ship occurred.

With the firerooms dark, the floor plates topsy-turvy, it seemed for a moment to the men on board as if the ship was sinking, but not a man left his station. The men confined below decks in the firerooms were later commended for their action by the Secretary of the Navy.

We had experienced a danger which later was to become one of the most serious which had to be faced. No conceivable effort could eliminate the possibility of one mine countermining others. Against this condition the electric protective device was useless. A mine planted at the lowest level had caused considerable damage aboard *Patuxent*.

It seemed most probable that had it been an upper level mine the ship would have been sunk.

A few moments after *Patuxent's* shock another mine was exploded by the sweep, which fractured the sweep wire and necessitated leaving the field, so that it might be repaired in safety. Before this could be done, however, a blinding snowstorm had overtaken the two vessels.

In the two days' sweeping, 21 American mines had been exploded and 17 more were definitely known to have been cut adrift. It was probable that on the first day, when the weather was rough, considerably more were cut adrift but could not be observed on account of the waves and the whitecaps. Several floating mines were sighted during the operations and sunk by rifle fire.

By the 28th of April everything was in readiness to commence the first regular operation, but sailing was delayed for 24 hours on account of the heaviest snowstorm of the year.

Since the first operation was to be purely experimental, no definite area was to be cleared. Several important appliances were still to be tested, and because of the scant experiments which had been possible to perform before the arrival of the sweepers, it was necessary to gain more definite information of the behavior of the mines. We had to know more definitely the danger of countermining; what percentage of the mines were still in place; and if the mines were still in the positions in which they had originally been laid.

There was a possibility that the storms and currents had scattered them from the straight lines in which they had been dropped, in which case the safety reasons for adopting the methods of sweeping which had been chosen for this first operation were groundless.

Each pair of sweepers were directed to stand over to a point on the southern side of the barrage opposite a buoy, form line abreast, well separated, so that the mines which were countermined by one pair would not be likely to damage adjacent pairs, then sweep across the barrage toward the buoy. After completing the first crossing they were to turn and recross back and forth for two days to gain the information required.

On May 2 the sweepers and sub chasers completed the first operation and proceeded to Kirkwall. Some 221 American mines had been destroyed, which represented approximately 25 per cent of the total mines which were laid in the areas over which they had swept.

The percentage at the time seemed much too small, and in the light of later operations this was attributed to the difficulty which the sweepers had in telling when their sweep was broken. It sometimes occurred that a pair of vessels would continue operating for hours before they became aware that their sweep had been severed by the explosion of a mine. In this manner they assumed that there were no mines in the areas which they had passed over, while in reality the mines were still there but could not be caught with a broken sweep.

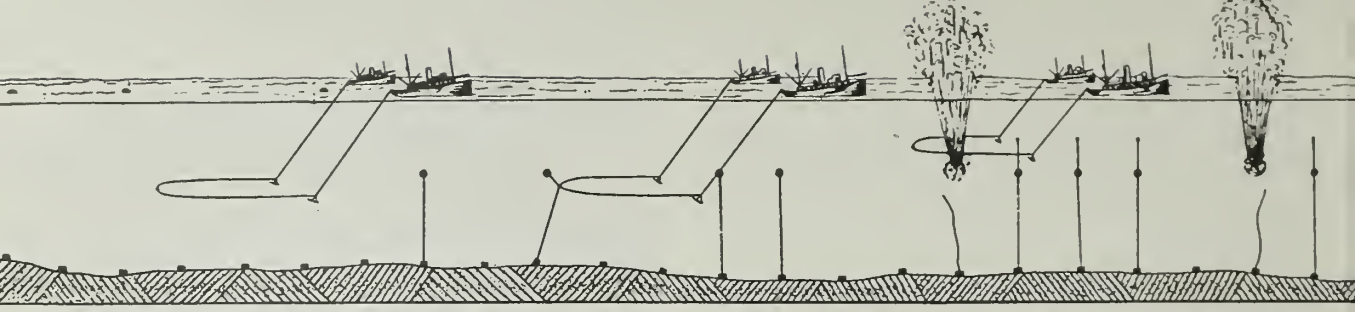
During the two days there had been observed seven separate instances of countermining, none of which had resulted in any damage to the vessels engaged. The thing learned which was of greatest importance in later operations was that the countermines were apt to occur at any time without relation to the initial explosions which caused them.

The cause of these "hang fires" was not entirely apparent. It might be due to leaks started in the antenna floats which; after reaching a certain point, were sufficient to explode the mines. Observations at night on the hydrophones showed that the mines continued exploding throughout the night at irregular intervals.

Admiral Strauss therefore decided that since mines were apt to explode at any moment without relation to other mines, the safest method of sweeping the barrage would be to cross the field the minimum number of times that was actually necessary; or, in other words, to use the largest sweep it was possible to employ instead of endeavoring to use a sweep, as had been done on the first operation, sufficiently small to allow the sweepers to be between the lines of mine when there was a possibility of exploding a mine by contact with the sweep wire. The longer sweep would allow a field to be cleared in about one-third as many crossings over the mines as would be necessary with the shorter one.

By the early part of May, some 20 trawlers were ready to begin operations. Although no one was quite sure

CLOSE ABOARD, mine blast almost completely hides *USS Patapsco*, as *USS Patuxent* steams past.



LEADING PAIR of sweepers have sweep set to cut antennas and detonate mines. Explosion ahead was caused by shock waves from first mine detonated. Two following sweeps cut cables of unexploded mines. Sub-chaser follows sweepers.

just what the mines would do, all hands felt it was best to go ahead and learn the hard way. It had been decided to clear each of the 13 *groups of mines separately and one specific area, designated as Group* 12, *selected as the first serious operation because it seemed to be safest.*

USS *Patuxent* was the first victim. On May 12 the sweep had been severed by an explosion and had to be hauled on board to be repaired. When the kite was within sight a mine could be seen hanging by its mooring cable.

The commanding officer immediately sent all hands forward to a place of safety, going aft himself to clear it with the assistance of his chief boatswain's mate.

The mine was on the surface about 10 feet from the side of the ship when suddenly, without apparent cause, it exploded.

Several men were blown overboard by the mass of flying water, but all were rescued. The commanding officer, who at the time of the explosion was only a few feet from the mine, escaped with the loss of his thumb.

Since the force of the explosion had been largely spent in the air, the damage to the ship was not serious, and a few days in dry dock were sufficient to repair her.

Up to this time several mines which had fouled the sweep had been hauled on board as souvenirs; for, according to design, they should be safe when within approximately 30 feet of the surface. This practice now was discontinued voluntarily.

No one trusted the mines under any circumstances, and one ship even went so far as to double the risk by throwing one, which was then on board, back over the side.

Precaution, however, could not entirely eliminate the danger of mines fouled in the sweep. They could not be seen until they were dangerously close to the ship, then the action taken might or might not prove the proper one. It was impossible to tell.

Two days after *Patuxent's* accident the same casualty befell *Bobolink,* but with far more serious results.

Again the commanding officer went aft to clear the mine in person. Almost before anything could be done it exploded, killing the commanding officer, and blowing the boatswain and three other men into the water. All four were rescued, although the boatswain had been knocked unconscious by the shock.

The ship was seriously damaged. The after hull plating had been driven in places as much as two and three feet; the rudder and rudder post were gone; the propeller distorted and shaft bent; the engine had been thrown out of line; the towing engine, capstan, search lights, and many other fixtures had been broken or disabled. The boilers fortunately, were not damaged, which enabled the wrecking pumps to handle the water which poured into the after part of the ship.

(One indication of the success of the barrage occurred the second day after the sweepers had begun work. In the western part of the barrage the water is more shoal than elsewhere, and while crossing the lines of mines two trawlers were suddenly brought almost to a standstill by an obstruction which fouled their sweep. A few minutes later a large patch of oil rose to the surface and spread out astern of them. Evidently a German submarine which had been sunk in the barrage had been encountered. From the records of the Admiralty, it was presumed that the obstruction was the wreck of the German submarine UB-127.)

AS WE RESUMED A FLOOD of catastrophies was in store for us, more than we should have to face any other period during the entire operations.

- The first victim was *Curlew,* which was damaged by the explosion of a mine fouled in her kite and was forced to return to Kirkwall for repairs.
- Shortly afterwards three mines were countermined beneath *Patapsco.* Fortunately the damage was not serious.
- *Penguin* followed with numerous minor damages from an explosion in her kite, and almost at the same time *William Darnold* was similarly disabled. Both ships succeeded in making temporary repairs upon the mine field and continued operations.
- *Lapwing* was next; she was seriously countermined and had to return to port.
- Sub chaser 46, while sinking a floating mine, exploded it and also had to return.
- Then, to cap the climax, six mines were countermined beneath or close aboard *Pelican.* One directly beneath her was an upper level mine and the ship was practically deluged in the mass of water thrown up by the explosion. When the water had subsided, *Pelican* was sinking.

The explosion had badly ruptured the forward part of the ship and she was rapidly filling with water.

Just 17 minutes after the accident Capt. R. C. Bulmer, who had come out to direct the operations, had placed his flagship, *Auk,* alongside *Pelican,* the wrecking hose connected with the forward compartments of the damaged vessel, and the pumps were working at their maximum capacity to keep the ship afloat. A few minutes later *Eider* had secured on *Pelican's* other side and her pumps were doing likewise. *Teal* then took the three ships in tow and the four vessels lashed together, headed slowly for port, with the bow of *Pelican* barely above water.

All went well for the first few hours. The pumps of the two vessels were sufficient to maintain *Pelican* in

her present condition. Her own boilers had been disabled by the explosion, so that she was entirely dependent upon the assistance of *Auk* and *Eider*. But they had not gone far before difficulties began to arise. A head sea sprang up which made it difficult for the vessels to remain alongside of *Pelican* without excessive strain being thrown on the moorings and hose lines as the ships were tossed about by the seas.

As the ships proceeded conditions grew worse. The pump lines carried away and the water gained rapidly until *Pelican's* bow was awash. The forward fireroom bulkhead, which alone kept *Pelican* afloat, was buckled and distorted by the pressure of the water on the forward side and in danger of bursting at any moment. Since under such conditions it was not safe to leave unnecessary men aboard the damaged ship, 12 volunteers to remain on *Pelican* to do the necessary work were asked for, but every member of her crew stepped forward. After choosing the 12 strongest men, the remainder had to be ordered from their ship against their will.

In the meantime, the crews on *Auk* and *Eider* worked desperately to get the pump lines repaired and again operating. There were still 50 miles of open sea to be traversed before shelter could be reached, and to add to the difficulties darkness had overtaken them. Men stood by with axes to cut the mooring lines on *Auk* and *Eider* in case *Pelican* should sink.

This struggle continued throughout the night, and although it seemed at times as if there was little hope of reaching shelter where the pumps would have a better chance and where some leaks might be plugged, the ceaseless and determined efforts were finally rewarded when, the following day, the ships reached the shelter of Tresness Bay with *Pelican* still afloat. Such holes as could be plugged with the vessel in her present conditions were stopped, and the same afternoon she was towed to Scapa Flow, where she was docked and temporary repairs made to enable her to be towed to Newcastle-on-Tyne, where complete repairs could be undertaken.

So the sweeping progressed throughout the summer. All hands became more skilled and experienced, avoiding with relative ease circumstances which a few months earlier would have been fatal. In improvised ships which already showed the effects of one war, the crews worked from one group of mines to the next, struggling against storms and fog, the unpredictability of the mines, exasperating delays, the calendar and lack of supplies. This was the situation by August:

PERHAPS THE MOST REMARKABLE part of the entire sweeping operations was the magnificent spirit exhibited by the men who manned the ships. A large portion of the crews consisted of men in the Reserve Force or who had enlisted for the duration of the war. They were now due and entitled to be released from service.

Orders had been issued by the Secretary of the Navy in May and June directing their release, but we could not let them go. Every man on board ship was needed, and more, too; reliefs for them could not be obtained on account of the rapidly increasing shortage of personnel in the Navy. The Secretary therefore authorized the suspension of his orders until the clearing of the barrage had been completed.

The men, as well as the officers, realized the necessity of completing the clearance of the barrage during the summer of 1919; they also realized that the quicker it was cleared the sooner they would be released from service, and they plugged along from 4 o'clock in the morning until 9 and 10 and sometimes even later at night.

It is an interesting fact that the dangers involved in an undertaking never seem to receive consideration by the average man who is required to do the work. Minesweeping was continually dangerous. Mines exploded when least expected; one ship had been sunk; on others men had been blown overboard and lost. A catastrophe was apt to happen at any moment, but by now minesweeping to all hands was merely the "day's work."

The days in port were even more busy than those at sea. Every moment had to be utilized to complete the repairs and the overhaul at the earliest possible moment. After each trip, besides refueling and taking on water, the boilers had to be cleaned, provisions obtained, new sweep gear provided, and the old overhauled and repaired.

Many repairs which ordinarily would have required the assistance of repair ships or Navy yards had been completed while at sea.

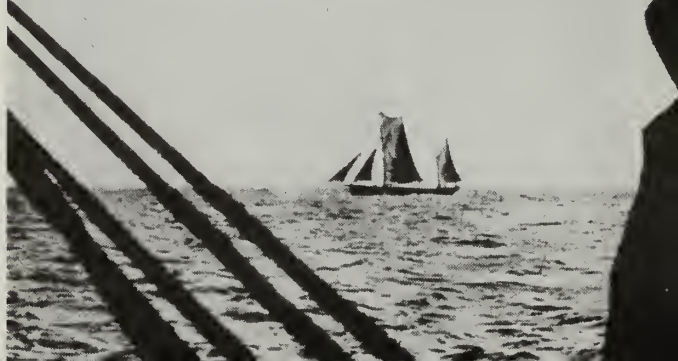
One sweeper had made new piston rings from a stove lid.

Another had dismantled her condenser overnight and replaced leaking tubes with new ones and was ready to resume operations by daylight the next morning.

A third ship found it necessary to replace tubes in one of the boilers, but instead of returning to port, where she might be dismantled, she managed, by running at slightly reduced speed, to cut out that boiler, cool it down, and replace the tubes while the vessel was actually engaged in sweeping. While this was being done the ship was rolling so heavily in the seaway that her top mast had been carried away.

The days of ceaseless effort and the lack of comforts and diversions were easily forgotten in the hour of triumph. And it was indeed a triumphant force that passed the final buoy marking the last mile of what had once been the barrage. As the sweepers, two by two, steamed by the buoy, slipped sweep, and set their course the last time for Kirkwall, cheers burst forth spontaneously from every officer and man in the detachment, while the sirens and the whistles shrieked loudly. A mammoth task had been performed; a barrier that had menaced the German submarines and later barred the commerce of the seas had finally been conquered; and the Navy's obligation to mankind to remove the mines which she had laid had been fulfilled.

FISHING SMACKS—*Red Rose* and *Red Fern* were specially fitted out to do experimental sweep of Northern Barrage.



TAFFRAIL TALK

What with all this talk about shore duty, a stranger might get the idea that no one in his right mind would deliberately request sea duty. Not so. The lure of "far away places with strange sounding names" has prompted E. E. Synigal, Jr., YNSN, to turn down the opportunity to serve in his home town, New Orleans, upon graduation from NTC San Diego, Calif.

Synigal, by virtue of his outstanding marks at Yeoman School, was given his choice of duty upon graduation. There were 26 shore billets available, including one in New Orleans, but Synigal said "No thanks" to the opportunity and explained he'd rather have sea duty.

"One of the main reasons I joined the Navy was to travel," he said as he awaited orders. "I like to travel and this will be a good chance to go places I've never seen before."

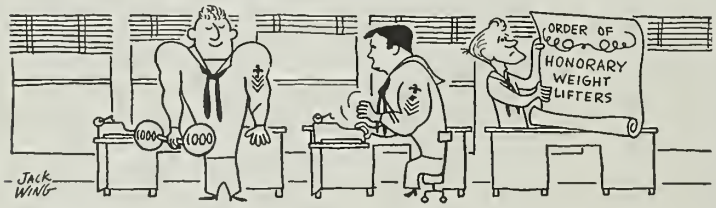
★ ★ ★

Some day this christening business is going to go too far, but we can't visualize when or where. We read a while back, for example, about an occasion in which a 50-foot midsection was grafted into the hull of USS *Ulua* (SS 428). It was quite a job and the Portsmouth Naval Yard was justifiably proud of its work.

With due respect to Navy custom which calls for the christening of almost everything that floats, employees gathered round as the section was placed in the river. A Navy Yard employee, with utmost appropriateness, wielded a cup of coffee, with cream and no sugar, against the steel hull. Then all hands turned to for the next phase of the operation.

★ ★ ★

Honest, fellows, the "Old Navy" really *is* passing. We noticed the other day a statement to the effect that one and one-half tons of strawberries are consumed aboard ship to every ton of beans. Wonder what our rough, tough old timers would make of that? (They'd probably sneer, but we'll wager a month's pay against an extra duty watch, that they'd eat the strawberries.)



Boatswain's mates, utilities men and cargo handlers can now respectfully doff their hats to the yeoman as one of the Navy's hardest workers according to our old friend, the anonymous statistician.

Figure it out for yourself. It is estimated that the average typewriter key requires a pressure of 14 ounces. The length of a line averages six inches. That means 60 impressions for one line, or 840 ounces. If the average letter runs 15 lines, that's 12,600 ounces. Thirty letters are regarded as a fairly good day's work for a typist. That means 378,000 ounces a day, or 23,625 pounds, or nigh unto 11½ tons.

No wonder the ALL HANDS staff is tired after each issue. We have to do our own typing.

The All Hands Staff

ALL HANDS

THE BuPERS INFORMATION BULLETIN

With approval of the Bureau of the Budget on 23 Jun 1955, this magazine is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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Distribution: By Section B-3203 of the Bureau of Naval Personnel Manual the Bureou directs that appropriote steps be taken to insure that all honds have quick ond convenient access to this magazine, ond indicates thot distribution should be effected on the bosis of one copy for each 10 officers ond enlisted personnel to occomplish the purpose of the magozine.

In most instances, the circulation of the magazine has been established in accordance with complement and on board count statistics in the Bureau, on the basis of one copy for each 10 officers and enlisted personnel. Because intra-activity shifts affect the Bureau's statistics, and because organization of some activities may require more copies than normally indicated to effect thorough distribution to all hands, the Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required; requests received by the 20th of the month can be effected with the succeeding issues.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

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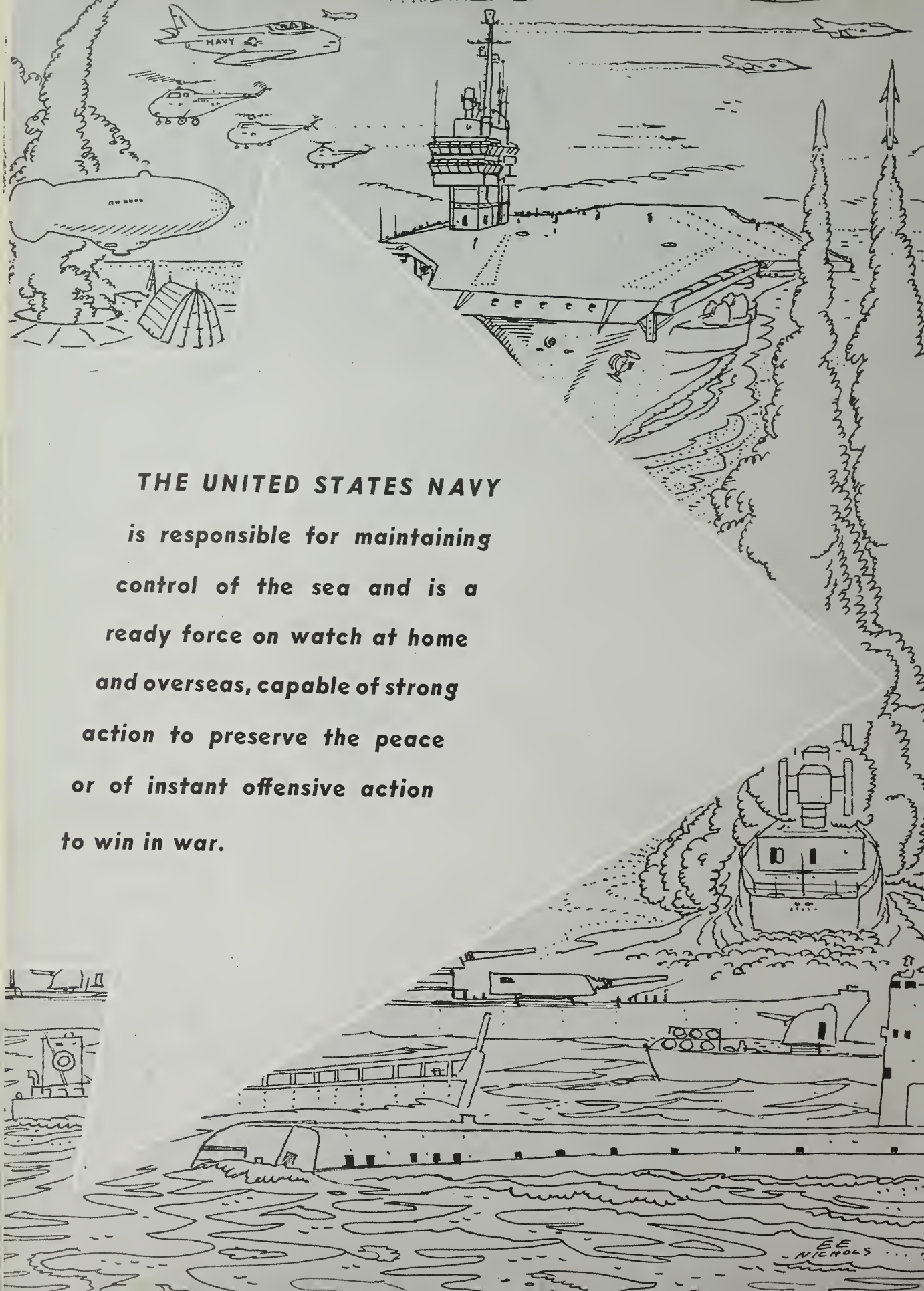
REFERENCES made to issues of ALL HANDS prior to the June 1945 issue apply to this magazine under its former name, The Bureau of Naval Personnel Information Bulletin.

• AT RIGHT: FORECASTLE of USS *New Jersey* (BB 62) offers ideal vantage point to view domain of Neptune and of USS *Iowa* (BB61) during cruise.

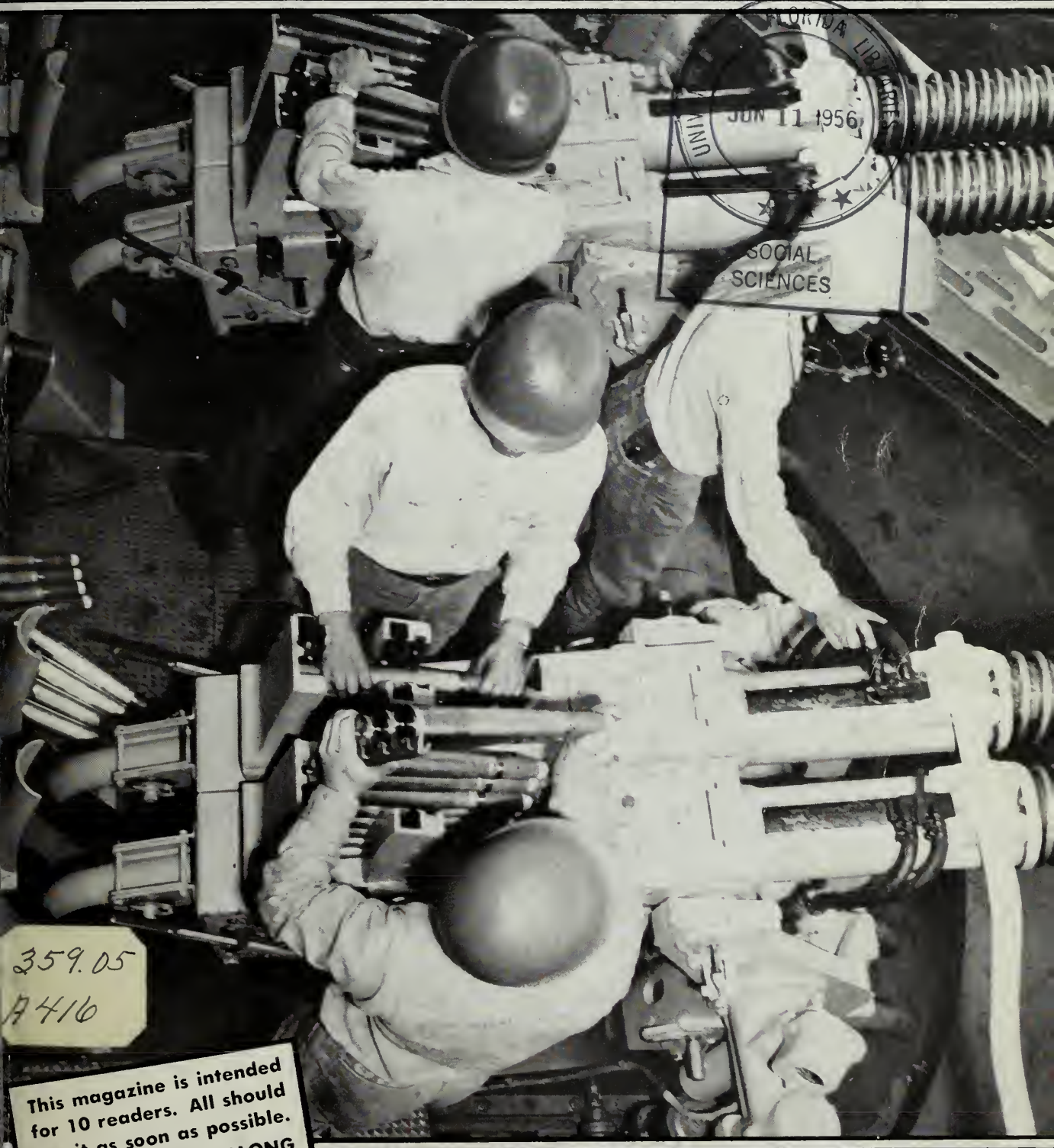


THE UNITED STATES NAVY

is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



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JUNE 1956

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JUNE 1956 NavPers-O NUMBER 472

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- **FRONT COVER: TEAM WORK PAYS OFF——Gun crew of quad 40mm antiaircraft mounts have to work fast and accurately to keep up with their gun whose four barrels can throw a total of 560 projectiles skyward every minute.**
- **INSIDE FRONT: GIBRALTAR—stronghold at gateway to Med is viewed by officers and crew from deck of USS *Intrepid (CVA 11)*.**
- **CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.**

GUNNER'S MATES can be found at both ends of their guns. *(left)* firing from breech *(rt)* cleaning bore.

High Caliber Combo

OLD TIME NAVY GUNNERS like to tell a little story about themselves. It seems that in days of our fathers (when most of the old timers claim to have been gunner's mate strikers) a man who had the rating of GM wasn't called a gunner's mate. Rather, they claim that the letters stood for "government mule."

We can't guarantee the truth of that tale, but it is common knowledge that the present day gunner's mate is much different from his predecessor, who held the second oldest rating in the Navy. The men in the nuclear Navy's gunner's mate rating have developed into highly technical specialists. No longer can the GM tackle an ordnance casualty with a pair of pliers, a screwdriver and a hammer. Using the basic hand tools, today's GM must also be able to read schematics, have a working knowledge of electricity, hydraulics, mechanics, and fire control.

Gunner's mate ratings have been present in warships as far back as the sixteenth century. (For even earlier predecessors, see page 6.) Like everything else, this specialty has come a long way. Take a good look at one of those old 24-pounders used in the Revolutionary War Navy. Mounted on a wheeled platform, it had a barrel nine feet long and weighed over two tons. It was trained by paying out or hauling in on side tackles which were attached to the gun carriage and the side of the ship. Maximum train angle on most guns was 15 degrees to the right or to the left. The gun was elevated by levering on the breech with a handspike.

There was no hydro-pneumatic recoil system to take the shock of recoil and return the gun to battery. The breech of the gun ended in a pad-eye through which a hawser was rove. As the gun had the kick of a Missouri mule, the hawser for a 24-pounder was seven inches in diameter. The two hawser-ends were secured to ring bolts in the deck at either side of the gun muzzle. In recoil, the gun was brought up against the line.

There were 12 men in the gun crew of the 24-pounder. What with hauling the gun around and operating the ramrod, they were a hardy bunch of GMs (and very probably deserved the unofficial title of "government mules").

Another line, the preventer, was secured to the rear of the gun carriage to prevent the gun from rolling to the rail if the ship rolled while the charge was being loaded. Two men would take up the slack to hold the gun at loading position. Then after it had been sponged and the charge rammed home, they would pay out on the preventer, allowing the gun to roll to battery position. In smooth water, the gun

KEEP IT CLEAN—Gun crew works

MEN WITH THE GUNS are a busy lot. *(left)* Gun captain checks mount. *(rt)* Gun crew eats during lull in action.

GMs and Their Guns

was shoved to battery position (muzzle at gun port) by hand.

The 24-pounder was a relatively modern development and the gunner's mates highly skilled. When gunpowder was first introduced in naval warfare, there arose a need for men to handle both the powder and guns. Because the ordinary sailor had little or no knowledge of gunnery, special crews were recruited for the sole purpose of handling and firing the guns.

By the time the Civil War came along, the gun crews had grown so large they had become unwieldy. It was no longer practicable to have one crew to man the guns and another to man the ship. So the Navy cut down on the number of gunnery specialists and began having the few specialists that remained train the deck hands in the complicated area of naval gunnery.

U. S. Navy Regulations, circular No. 7, 7 Jan 1874, listed the requirements for a man to be signed up for "Acting Gunners for entrance, and subsequent for a warrant, as gunner." This circular stated:

"A candidate for the appointment of acting gunner must be a seaman of sober and correct habits, but be not less than 21 nor more than 35 years of age, and must, previous to the professional examination, pass the required physical examination.

"He must be able to put up all kinds of ammunition, to make impressions of vent and bore, to star-gauge guns, to adjust, verify, and use sights, and to fit all gun-gear.

"He must be fully conversant with all orders and regulations in regard to the care and handling of ordnance material and store afloat and ashore and with the charges of powder for guns and projectiles of every caliber.

"He must be able to read and write with facility; must understand the first four rules of arithmetic and proportion; must be able to keep the gunner's accounts accurately and have made a cruise in a sea-going vessel of war.

"Hereafter, no person shall be appointed an acting gunner until he shall have satisfactorily passed an examination on the subjects mentioned, and no acting gunner shall receive a warrant as gunner until after making a cruise of not less than one year, as acting gunner, in a sea-going vessel of war, and after a course of instruction at the Washington Navy Yard, he shall have passed through examination before a duly authorized board of Line Officers and no acting gunner shall be so examined unless he shall present commendatory letters from his commanding officer."

Think you can qualify? Here you can see the resemblance of the jobs of gunners of yesteryear and in to-

uns of USS New Jersey (BB 62).

FLEET'S FIRE POWER is in the hands of the Gunner's Mate. Gun crew mans quad 40s. *Below:* 16-inchers sound off.

day's atomic age Navy. Certainly, today's GM must know the "four rules of arithmetic." But in addition, because of the tremendous advances made in naval gunnery, today's GM must have a working knowledge of such sciences as ballistics, fire control, electricity and electronics.

The biggest job of gunner's mates today," states Surface Ordnance Technician (W-4) P.M. Gorman, USN, "is maintenance. It doesn't matter how well the gun crew has been drilled if the gunner's mates haven't kept up the daily maintenance of their guns."

As bull-gunner in the Navy and former assistant officer in charge of the Class "B" Gunner's Mate School in Washington, D. C., Gunner Gorman knows whereof he speaks. Mr. Gorman has been associated with gunnery during his entire naval career. After enlisting in the Navy in 1928, he was a gunner's mate in the old battleship USS *New York* (BB 34) until he received his appointment to warrant gunner. He will wind up his 30-year career in the Navy with a tour of duty at Annapolis, the spot where many Navymen began their career.

In the days of old, the gunner's mate only had to prepare his gun for action, then after the action, to clean his gun. Occasionally, he would chip off some of the accumulated rust. That was about all.

But with today's modernized equipment, the GM has at his fingertips guns that spit several rounds per minute of destructive power for a distance of many miles at an enemy that is out of sight. Such guns require a specialist to maintain them.

The extent of study required can best be indicated by taking a glance at the training manuals gunner's mates are required to study for advancement. *Gunner's Mate 3* is an encyclopedic effort of some three volumes totaling slightly more than 1150 pages; *Gunner's Mate 2* a relatively lightweight job of two volumes totaling some 538 pages, and *Gunner's Mate 1 and C* a mere 599.

You may have noticed in recent press releases that each of the five-inch turrets on the light cruiser USS *Worcester* (CL 144) won an "E" for excellence in gunnery. This, in itself, is an outstanding accomplishment of training and teamwork. But if you check a little further, you'll find that there's a crackerjack bunch of gunner's mates in *Worcester*.

Not only have *Worcester's* GMs kept their guns in excellent shape, they have thoroughly trained their gun crews. Since competition in gunnery also includes inspection of the logs and records kept by the gunner's mates, it is obvious they have done plenty of paper work.

Worcester's gunner's mates, like all other GMs in the Navy, have been trained in the construction, function and theory of operation of their guns. Through formal training in the Class "A" and "B" gunnery schools, in addition to informal on-the-job training, they are capable of testing, adjusting and making shipboard correction of operational casualties on guns on which they are qualified.

As a gunner's mate, a man must have a working knowledge of all the phases in his rating. But as in any other rating, he too, becomes specialized in one gun or type of work and is assigned a job code number accordingly. There are some 40 different job codes for which a gunner's mate may qualify, but come examination time, more than likely he'll have to know more than a smattering of all fields. The principal job descriptions include:

• *General ordnance repairmen, hydraulic:* Makes responsible hydraulic and general repairs involving disassembly and assembly of such equipment as rammer drive units, receiver regulators, variable speed gears and hydraulic pumps.

• *Gunnery maintenance man, hydraulic:* Makes hydraulic repairs to dual purpose automatic weapons and mounts and their related hydraulic equipment. Men in this category are graduates of the Class "B" GM school.

• *Gunnery maintenance man:* Performs routine maintenance duties like cleaning and lubricating guns, boresighting, marking and stowing ammunition. Under close supervision he can make simple adjustments to hydraulic systems.

• *Gunnery maintenance man, anti-submarine warfare:* Maintains depth charges, anti-submarine rockets, release racks, K-guns, hedgehogs and mousetraps on patrol craft; prepares depth charge for firing, installing detonators and pistols; tests, inspects and maintains release track and hydraulic controls of release tracks.

• *Gun mounts supervisor:* Supervises personnel in maintenance and repair of gun mounts, rocket launchers, mortars, and associated equipment.

BELOW DECK members of the gun crew place a five-inch powder charge in the lift used to carry charge from magazine of *USS Worcester* (CL 144) to gun.

• *Turret captain:* He must have some basic knowledge as required under general ordnance repairmen, hydraulics. He also supervises in the maintenance and repair of his turret.

• *Small arms repairmen:* Assigned to ship's armory as primary duty on board ship. Maintains and lubricates small arms and small arms ammunition. Keeps stock of ordnance parts and tools, pyrotechnics, line throwing guns, lubricants, recoil liquids. Maintains and repairs small arms, including automatic pistols, rifles, shot guns, machine guns, and submarine guns.

• *Armor:* Supervises and trains men in use and maintenance of construction battalion landing force equipment, small arms and explosives.

• *Gunner's mate, basic:* This classification is for those rated men and strikers who perform routine duties or basic gunner's mate duties, but who are not qualified for a specialized classification.

Like the duties of most other Navy specialists, the GM rating covers a multitude of jobs. According to the book, gunner's mates must be qualified to operate, maintain and repair small arms, rocket launchers, guns and turrets. As a repairman, he can fix and overhaul the different electrical, mechanical and hydraulic systems in guns, turrets, hoists and associated equipment. He's got to be part electronics technician, too, so that he can test and adjust the electronic amplifiers of gun-director drive systems.

Another vitally important job of GMs is the inspection of magazines for proper temperatures, testing of powder, and making sure that sprinklers and flooding systems are in constant readiness. He must also have a knowledge of depth charges and release mechanisms. Add these all together, pardner, and you've got yourself a job and a half.

Gunner's mates have a great responsibility during war or peace. It is their job to see that their guns operate perfectly at all times. You won't find a prouder man than a gunner supervising his precisely drilled gun crew, with the gun operating perfectly throughout the period.

—Rudy C. Garcia, JOC, USN.

Naval Fire Power Down

A GONNER MUST love and serve God." The reason for this warning to old time gunners is apparent from an excerpt from an Old Ordnance Pamphlet: "The early gonner had to be nimble in giving fire, which as soon as he espieth to flame, he ought with quickness to retire back three or four yards out of danger of the reverse of ye wheels and carriage of ye peece, for oftentimes it happeneth that the wheels or axle tree doth break and spoile ye Gonner that giveth fire, not having ability to move himself from the danger of ye same; yea, I did see a Gonner slaine with the reverse of the wheele of a culverin (a crude musket or long cannon), which crushed his legge and thigh in peeces, who, if he had a care and nimbleness withal, might have escaped ye misfortune."

Hundreds of years before anybody had thought of "gonners," or guns and gunpowder, the Egyptians, Persians, Greeks and Romans—all of the great ancient powers—fought naval battles. Their weapons were the spear and sword—the bow and arrow—pyrotechnic devices.

Ramming and boarding were the common practice and remained important until comparatively recent times. "Prepare to ram," was sounded more than a few times during WW II.

The ancients *couldn't* fight at a distance. The strategy was to maneuver close to the enemy and attempt to ram him, overturn him, board him by means of grappling hooks, or shear off his oars by running alongside. If no physical contact was possible between vessels, the fight consisted primarily of shooting incendiary arrows. Another good trick was to throw sulphur, pitch, niter or petroleum on the hostile ship, ignite it, row away and watch the fire. Also, one of the old Roman customs was to hurl darts, javelins and earthen jars filled with snakes at the enemy with the *catapulatas*.

The first recorded use of the "fire ship" or "fire raft" was at the siege of Tyre in 332 B.C. This "weapon" was a small vessel loaded with inflammable or explosive material used to set fire to the wooden ships of enemy fleets.

History tells us that the Greeks used the so-called "Greek fire" effectively as early as the seventh century A.D. particularly in naval engagements. This was a flaming stream projected from tubes carried on the bows of the vessels.

Gunpowder was known and used in making firecrackers by the Chinese in the ninth century. The first useful formula for gunpowder was probably introduced in the western world during the 14th century in a roundabout way through the Arabs from the Chinese formula.

With such an explosive material at hand, the inevitable problem was that of projecting it to destroy.

Until the 15th century, unless a ship was set aflame by incendiaries, the primary object in naval battle was "taking" it in hand-to-hand combat. The appearance of the "ship-killing" weapon, the gun, initiated "off-fighting" techniques. The point now was to attempt to batter the enemy into submission, or to damage him sufficiently to make boarding and capture possible. Requirements and methods of fighting changed radically. With guns aboard, ships needed gunners.

These "words of command for the exercise of the great guns" were taken from the *Navy Regulations* of 1818:

"Silence
Cast loose your guns
Level your guns
Middle your breechings
Take out your tompions
Take off your aprons
Prick and prime
Lay on your aprons
Handle crows and handspikes
Point your guns at the object

hrough the Centuries

Level your guns at the object
Blow your match
Take off your aprons
Fire
Stop your vents
Spunge your guns
Return spunge
Load with cartridge
Wad to shot and ram home
Shot your guns
Wad to cartridge and ram home
Return rammer
Put on your aprons
Man your side tackles
Run out your guns
Level your guns as above."

The gun's use as a weapon by the relatively modern navy was on something of a hit-or-miss basis. Less than 200 years ago, when naval guns were fired at point-blank range, fire control was largely a matter of skillful seamanship. A vessel had to be maneuvered to within shouting distance to make a hit probable.

During the 1812 period, our gunners were trained to shoot when their ship rolled toward the enemy, firing on the "down roll" so that their shots would strike the hull if they missed the masts and decks.

In addition to mastering the "down roll" technique, the early gunner had to learn to use the chain shot—for tearing the enemy's sails, carrying away his rigging and bringing down his masts. If he wasn't expended by a premature explosion of the 'hot shot" which was fired to a red heat in the galley stove, he succeeded in setting fire to the enemy. Also used was langrage, "a wicked collection of nails, iron scraps and bits of rusty metal (frequently) in a can." He also learned to use grape shot to drive the opposing crew from the upper decks and to damage the rigging.

The gunner of the old navy not only 'lived dangerously" but he also worked hard at it. Twelve men were required to load and fire a 24-pounder. Hauling the 5600-pound weight of gun and carriage during a long and hotly contested battle was so strenuous that the crew became exhausted.

The problem was more complicated during rough weather when the motion of the ship increased the difficulty of keeping the gun in place.

This problem was posed in the "Naval Gunner Instructions" of 1822:

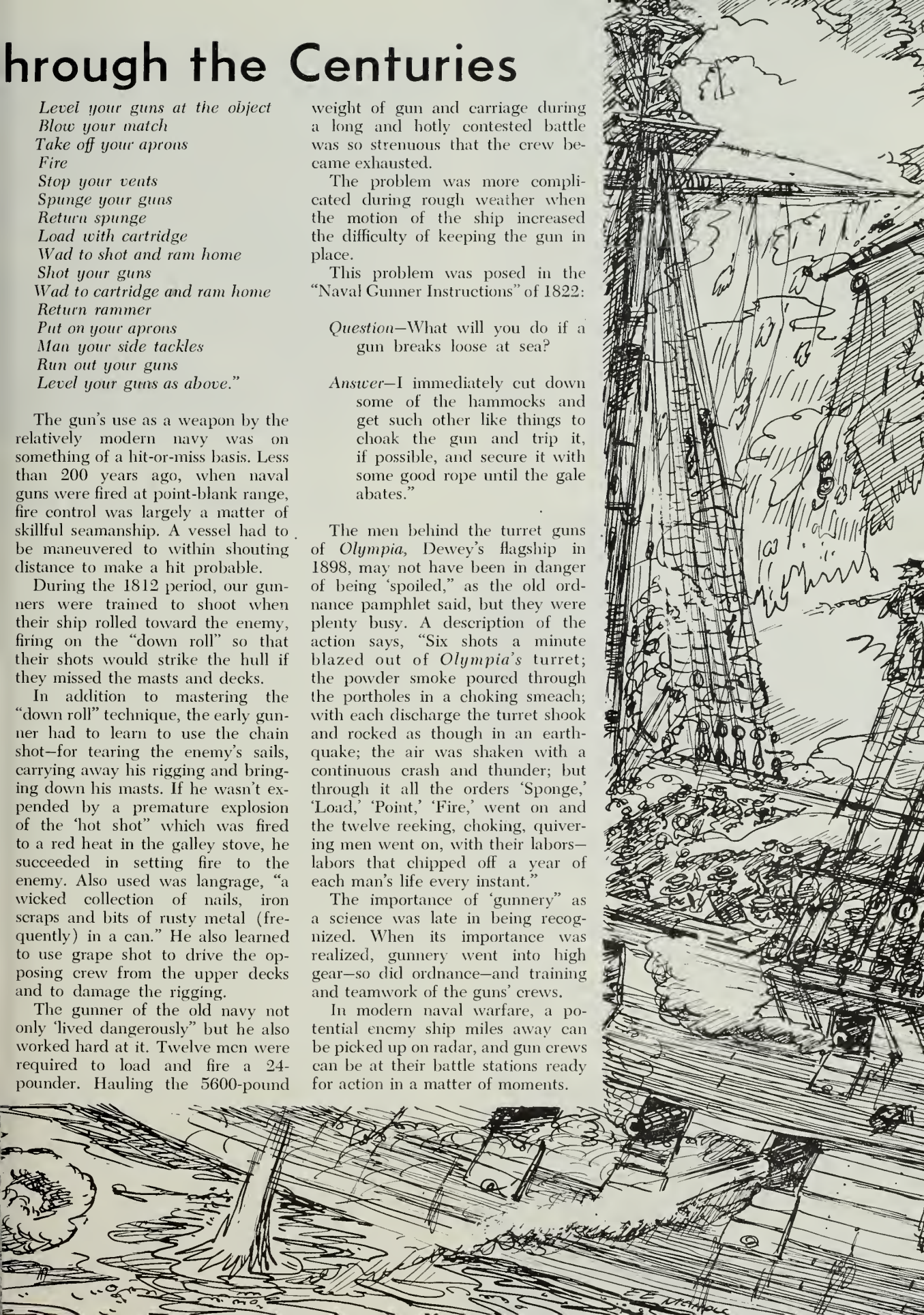
Question—What will you do if a gun breaks loose at sea?

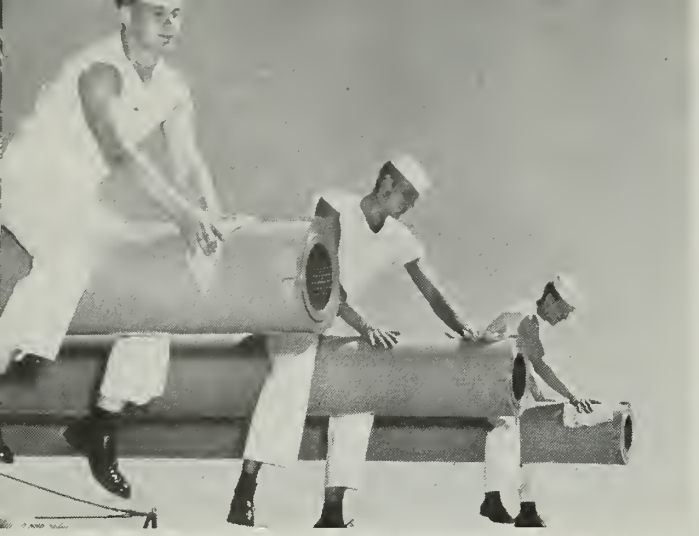
Answer—I immediately cut down some of the hammocks and get such other like things to choak the gun and trip it, if possible, and secure it with some good rope until the gale abates."

The men behind the turret guns of *Olympia,* Dewey's flagship in 1898, may not have been in danger of being 'spoiled," as the old ordnance pamphlet said, but they were plenty busy. A description of the action says, "Six shots a minute blazed out of *Olympia's* turret; the powder smoke poured through the portholes in a choking smeach; with each discharge the turret shook and rocked as though in an earthquake; the air was shaken with a continuous crash and thunder; but through it all the orders 'Sponge,' 'Load,' 'Point,' 'Fire,' went on and the twelve reeking, choking, quivering men went on, with their labors—labors that chipped off a year of each man's life every instant."

The importance of 'gunnery" as a science was late in being recognized. When its importance was realized, gunnery went into high gear—so did ordnance—and training and teamwork of the guns' crews.

In modern naval warfare, a potential enemy ship miles away can be picked up on radar, and gun crews can be at their battle stations ready for action in a matter of moments.





EIGHT INCH guns of *USS Salem* (CA 139) get wipe down at sea. *Below:* Sailors practice with 20mm AA gun.

TWIN FIVERS in covered mounts form main battery of many destroyers. Painting prevents rust, improves looks.

ROCKET GUNS blast Korean shore during night attack.

Great Guns-

GUNS ON NAVY SHIPS have come a long way since "Grandpappy" gunner's mate rammed an iron ball down the barrel of his bulbous cannon. From these old timers, whose accuracy could only be counted on when the gunner could see the whites of the enemy's eyes, have evolved the great guns of the Fleet that can blast the enemy from the sea before he can be seen.

Guns from the Fleet range from the king size 16-inch 45 caliber of the battleship to the smallest, the 20mm antiaircraft gun. Between these two extremes are seven different bore sizes that are further specialized by warring calibers and types of mounts or turrets.

At sea these guns form the main battery (usually the largest guns of a ship), secondary battery, and/or antiaircraft battery of our fighting ships.

The water-cooled 40mm guns seen in twin and quad mounts throughout the Navy, set quite a record through World War II by downing enemy planes with their rapid fire. Each gun is capable of approximately 140 shots per minute. This means a quad mount can throw out about 560 projectiles every minute. Until quite recently this was the most important heavy machine-gun in the Navy. Now it is being displaced by the new three-inch rapid fire gun. However, many combatant and auxiliary ships still carry these automatics.

The three-incher that is pushing out the familiar 40 duals and quads is not the single, three-inch 50 caliber mount so widely used in WW II.

This new shiny baby has a power-driven mount, and comes in singles and doubles that are equipped with automatic loaders. This RF is capable of firing 45 times per minute, over double the ability of the old.

Largest of the guns to come in mounts are the five-inchers. This gun has more different types of mounts than any other Navy gun and can be considered the nearest thing to the "typical US Navy mount."

Most common is the five-inch 38 caliber and the newest is the five-inch 54 caliber aboard uss *Forrestal* (CVA 59) and uss *Saratoga* (CVA 60). A lot of changes have taken place in this gun since the pre-

CRUISER MEN man their battle stations at 3-inch AA gun.

Navy's Got 'Em

World War II 5"/51 graced the decks of our fighting ships. The predecessor of the DP 50/54 only came in single pedestal type mounts that were manually operated. Since the open deck mount had but a 20-degree elevation it was only good for surface use.

An old version of the five-incher also had the distinction of being the first Navy gun specifically intended for antiaircraft use. This was the 5"/25. In its heyday, more than a dozen years ago, this fiver could be found on many cruisers and some battleships. Although it embodied many characteristics of its modern counterpart it has been displaced by the 38-caliber model except as a wet mount on a few large subs.

The fivers come in duals and singles and perhaps are best known as the main battery of destroyers.

The next size gun, the six-inch on light cruisers, is the smallest of the turret class guns. The latest in six-inch turrets is found aboard the *Worcester* class cruiser. These guns, in spite of their size are capable of high enough elevation to be classified as dual purpose.

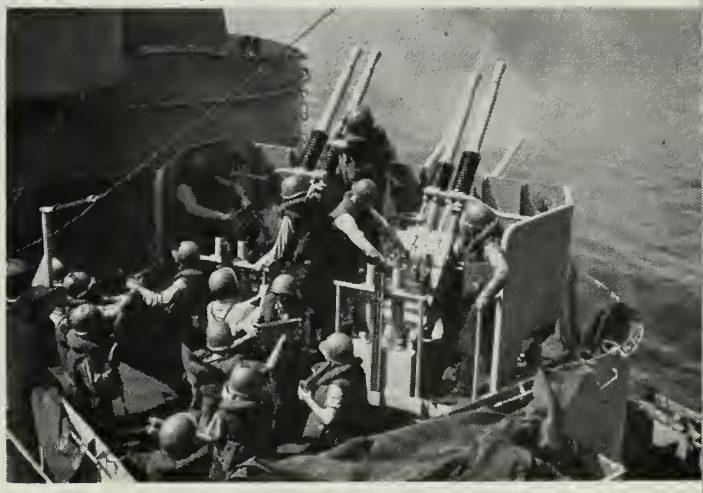
First cousin to this "six gun" is the Navy's new *Salem* class rapid fire eight-inch gun. These two guns represent the very latest naval turrets. The new RF eight fires three times faster than the older *Baltimore* class eight-inch 55 caliber. It uses case type ammo instead of bag, and no attendants are needed in the gun compartment.

There are two other turret guns before you come to the Big Bertha of the battlewagons. They are the 12-inch guns of the large cruisers USS *Guam* (CB 1) and USS *Alaska* (CB 2) and a 14-inch gun can be found on a few of the old battleships.

Daddy of them all is the powerful 16-inch guns of the modern battleship. They run three to a turret and there are two forward and one after turrets thus making a total of nine of these large guns per BB. They are capable of firing projectiles weighing over a thousand pounds at distances of 35 miles.

In addition to this array of armament the New Navy has the punch of torpedoes, rockets, and guided missiles.

BIG BERTHA—the 16-incher of battleships is largest gun at sea. *Below:* Automatic 40mm quads shower the sky.



SIX-INCHERS, like these of *USS Manchester* (CL 83) are smallest of turrets and have enough elevation for DP use.

THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **SLEEVE MARKS**—As a result of recent Fleet trials, ship-name sleeve marks have been adopted for wear by all shipboard enlisted personnel below the grade of chief petty officer. First deliveries are anticipated by September, with a final delivery date of 1 Jul 1957 scheduled.

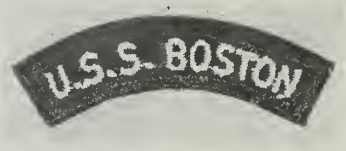
Five sleeve marks will be issued to each man for wear on dress blue and white jumpers. When permanently detached from your ship, you will be required to remove all such marks from your uniform. The initial issue will be charged to operating and maintenance of your ship; additional name-marks may be purchased for about 10 cents each.

Here are the details, as described in an addition to Article 1202 (paragraps 7 and 8) of *Uniform Regulations:*

Ship-name sleeve marks will consist of a ship's name (see example) in ¼-inch white block lettering on blue background ½-inch wide, worn on the right sleeve of blue dress and white jumpers. Marks will be embroidered in a slight arc and worn parallel to and with top edge ⅜-inch below the lower row of stitching on right shoulder-sleeve seam, centered on the outer face of the sleeve. Marks should be sewn with colorfast blue thread.

When reporting aboard a ship for duty, each man will be issued marks for dress blue and white jumpers. When detached they will remove and turn in name marks previously issued. Afloat staff and afloat aviation personnel will wear the ship-name mark of the ship to which they are regularly assigned, unless manifestly impracticable as determined by the staff or aviation unit commander.

In the event of a possible future emergency which would require security of ship names or locations, wearing of name marks may be suspended during the emergency.



Ship Name Sleeve Mark

Enlisted women below the grade of CPO assigned to commissioned Navy ships will wear ship name sleeve marks when prescribed. They will be worn on service dress blue and white and gray working uniforms.

The effective date will be within 60 days after the sleeve marks are received on board and, in any event, not later than 1 Jul 1957.

• **TERM INSURANCE RENEWALS**—Members who have pay allotments in effect for five-year term National Service Life Insurance policies have been notified by Alnav 9 that the Navy Department can no longer renew such policies administratively. Therefore, each member must decide what is to be done with his policy *before* the renewal date. To accomplish this, the Veterans' Administration has agreed to forward renewals to the Navy Finance Center for location and forwarding to members in sufficient time for them to (1) pay the increased premium, (2) discontinue the insurance or (3) apply for waiver of premiums.

Previously the Navy automatically covered the increase in premium when the term period expired before the member was notified; then when the member received notification, his pay was checked to cover the difference between the old and new premiums at the same time the request for renewal or waiver was being accomplished.

The new procedure does not affect policy holders whose term policies are now under waiver or members who have permanent-plan NSLI policies, nor does it affect personnel whose first tour of active duty began on or after 25 Apr 1951, the date on which Servicemen's Indemnity act of 1951 went into effect.

Navymen who are not certain whether they are paying for their term insurance by allotment should check with their Disbursing Office to find if they have an "N" allotment in effect.

• **LDOs, OCs AND WOs SELECTED**—A change of uniform looms large in the future of 326 Navymen selected for appointment as limited duty officers, officer candidates and temporary warrant officers.

Of that total, 211 Regular Navy enlisted personnel and warrant officers will be designated limited duty officers with the rank of ensign; 109 enlisted personnel were selected for the April class at the Officer Candidate School, Newport, R. I., in the Integration Program; and five chiefs and one PO1 were appointed to the temporary grade of warrant officer, W-1.

The successful LDO applicants will be assigned to the Limited Duty

PASS THIS COPY ON—No need to rush, he always passes his copy on to nine other men.

• **ENLISTED PRECEDENCE**—Precedence among enlisted personnel in both military and non-military matters has been clarified in changes to Article C-2102 of the *Bureau of Naval Personnel Manual.* The revisions which will be included in the forthcoming Change No. 20 to the manual, were developed as a result of the many letters received by ALL HANDS concerning enlisted precedence.

In *non-military matters,* enlisted personnel will take precedence among themselves according to pay grade held and the date of advancement to that pay grade. In cases of the same date of advancement, precedence will be according to the rating held, as indicated in the table which is part of Article C-2102(3). For personnel in pay grade E-7 (CPOA or CPO) the date of precedence is that of advancement to chief petty officer, acting appointment.

The seniority for *assumption of military authority* of general service enlisted rates and ratings will continue to be in the order listed in Article C-2102(3). In military matters, dates of appointment have no bearing unless two individuals of the same rating and rate are involved.

Officer indoctrination course at Newport. Provided they meet physical and administrative requirements, they will be commissioned during the first week of the course. Those selected for the various categories were: Deck, 15; Ordnance, 15; Administration, 20; Engineering, 46; Hull, six; Electronics, 41; Aviation Operations, three; Aviation Ordnance, five; Aviation Maintenance, 12; Aviation Electronics, 19; Aerology, three; Supply Corps, 22; and Civil Engineer Corps, four.

The 97 line and 12 Supply Corps personnel selected for OCS in the Integration Program will be appointed ensigns in the Regular Navy upon graduation from the school. These candidates are in addition to the 225 whose names were published in BuPers Notice 1421.

Those picked for temporary WO rank included two BMCs, one BMI, two EMCs and one YNC.

• **DEADLINE FOR INDIANA BONUS**—If you're entitled to a Korean bonus from the State of Indiana and haven't applied for it yet, you'd better get moving. The deadline for mailing your application is midnight 30 Jun 1956.

Application blanks may be obtained from most veterans' organizations or from the Auditor of State of Indiana, Bonus Division, 431 N. Meridian St., Indianapolis 4, Ind. Completed forms should be addressed to the Bonus Division. So far, the state reports, several thousand eligible veterans have not filed.

For details on eligibility and pay, see ALL HANDS for January 1956.

• **INDEPENDENT DUTY FOR SUPPLY CLERKS**—For the first time in 161 years, "Pay Clerks"—now officially titled Supply Clerks—may be assigned to independent duty involving direct accountability for government funds and property. This would include duty as ship or station disbursing officers.

The basic change in Navy custom and tradition was made possible by a ruling of the Judge Advocate General of the Navy in interpreting the Warrant Officer Act of 1954.

A few supply clerks have already been assigned to accountable duties. The program will be stepped-up in the next few months.

The supply clerks' responsibilities formerly were given only to officers of the rank of ensign or above.

• **OFFICERS SELECTED FOR USN**—A total of 247 Naval Reserve and temporary officers have been selected for transfer to the Regular Navy by the Augmentation Continuing Selection Board which convened in February. Those who are temporary officers now in the Regular Navy will be given permanent commissions.

Of the selectees, 169 are line officers, and 78 are in the Staff Corps.

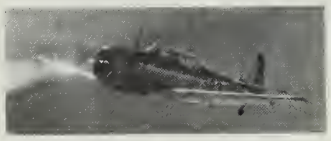
Those recommended for appointment, provided they meet the requirements, are in the following categories: Line, 74; Line, Women, 13; Aviation Line, 68; Engineering Duty, 1; Aviation Engineering Duty, 5; Special Duty Communications, 1; Special Duty, Law, 4; Special Duty, Intelligence, 3; Medical Corps, 11; Supply Corps, 23; Chaplain Corps, 7; Civil Engineer Corps, 12; Dental Corps, 5; Medical Service Corps, 8; and Nurse Corps, 12.

QUIZ AWEIGH

It shouldn't be too difficult to score a 4.0 in this month's quiz. If you are a constant reader of ALL HANDS (and we hope you are), the quiz should prove quite simple. All the information on these questions has been published in recent issues of the magazine.

1. Remember this one-time specialty mark? It represented a rating which has been reestablished. That rating is (a) Visual Communications Technician (b) Signalman (c) Quartermaster Signalman.

2. The men in this rating will usually be found performing their duties aboard ship around the (a) combat information center (b) bridge (c) gunnery office.



3. If you've ever had a chance to be around a naval air station, you'll certainly recognize this plane. Its designation is (a) SNJ *Texas* (b) S2F *Sentinel* (c) N3N *"Yellow Peril."*

4. This aircraft, which is being replaced by the T-348B, is used primarily as a (a) fighter (b) low-level bomber (c) trainer.

5. As a well-rounded Navymen, you should know what the above Army insignia represent. These insignia stand for different grades of (a) specialists (b) master specialists (c) outstanding NCOs.

6. The men who wear the above insignia are equal in pay grade, from left to right, to Navymen in pay grades (a) E-3, E-4, and E-5 (b) E-1, E-2, and E-3 (c) E-4, E-5, and E-6.

You'll find the answers to this month's quiz on page 52.

Naval Observatory Astronomers—

They Collect Moonshine, Shoot Star

LATE AT NIGHT in Washington, D.C., the Navy goes out to collect moonshine. Not the brown variety that bubbles forth from stills, but the real product that beams from Earth's only satellite. It's collected by U.S. Naval Observatory astronomers, and used to help the Navy survey the mountains on the moon.

Moon-mountain measuring, however, isn't the primary function of the Observatory. The Observatory's basic mission is to gather and publish basic celestial data which will be of value to navigators of ships and aircraft. In addition, the Observatory contributes material to the general advancement of navigation and astronomy. The celestial data comes to the Navy via the Observatory's publications, that is, the *American Nautical Almanac* and the *Air Almanac.*

The almanacs give a daily listing of the positions of the sun, moon and major stars and planets as they appear in the sky throughout the world. When a navigator "shoots the stars" to determine his craft's bearing, he must know their position in relation to the position of his ship.

The exact time at which the stars and planets were observed is an equally important factor. The Observatory's time service enables the navigator to determine the exact time from his ship's chronometer.

Chronometer accuracy is taken for granted today. It wasn't always that way, however. Before 1830, chronometers and other navigational equipment from decommissioned ships was shuttled into storerooms to be passed on to another ship at some future date. Much of this equipment became damaged in handling or corroded in inadequate storerooms. As a result, good chronometers in those days were hard to find.

To rectify this situation, the Navy established the Depot of Charts and Instruments in 1830. Located in Washington, D.C., the Depot was the forerunner of the present Naval Observatory and Hydrographic Office.

Activities of the Depot gradually expanded beyond the mere storage of instruments. Observations of the sun, moon, planets and brighter stars were officially begun in 1845. These results were published in 1846, and became the first such data to be published on this side of the Atlantic.

The Depot's activities further expanded into the field of chart making. This eventually became such a large project in itself, that the Navy decided to make it a separate activity. In 1866 the Hydrographic Office of the Navy Department was established, leaving the function of astronomy to the Depot.

From the original Depot, the astronomers moved to a location near the present site of the Lincoln Memorial. Expansion of the nautical use of astronomy, however, soon forced another move, and this time it was decided to select a permanent location for the Observatory.

A tract of land was chosen atop one of the highest hills in northwest Washington. Here approximately 72 acres were laid out in a circle with the clock house erected exactly in the center, 1000 feet from the circumference. It was necessary that the Observatory be located in an area where the atmosphere was free from smoke and heat radiations emitted by other buildings. Also, the location had to be away from highways. This was because earth vibrations set up by heavy traffic could affect the delicate instruments.

Equipment and scientists moved into the new location in 1893. Here their work has continued 24 hours a day to this date. Some of the original equipment, such as the 26-inch telescope, is still in use. Although a few new buildings have been added, the general physical layout has remained the same.

Visitors may walk in the spacious and beautiful grounds from 0800 to 1600 and special guided tours are provided at 1000 and 1400 each working day. Night tours are conducted monthly, usually on Wednesday between the first quarter and the full moon. Reservations for night tours must be made about six weeks in advance of the date of the desired tour.

A visiting Navyman would miss the traditional deck gray paint, temporary buildings and security restrictions which appear to be characteristic of a naval station. He would find a landscape of green lawns, quiet roadways and stately oaks. The result resembles a pleasant college campus.

Although the main building of the Observatory appears startlingly modern in design, traces of green moss on its white granite sides are testimony of its true age. This is the building that now houses the primary standard clocks that define

the Almanac Office and other offices where most of the astronomical calculations are made.

Actual observations are carried out in domes and buildings scattered about the grounds. They are of functional design which can be likened only to something out of science fiction. Round and white, the largest dome is about 50 feet in diameter. Each is located on its own plot of lawn and gives the appearance of having virtually bubbled up from the earth. Telescopes are trained on the universe through long open slits across the tops of the buildings.

Astronomers working in these buildings make most observations at night. Observation domes are unheated because heat waves rising through the slits would interfere with the atmosphere in front of the telescopes. If the domes were heated, it would be like looking through heat waves rising from a highway

nd Tell Time

on a summer day. During winter months, astronomers are sometimes forced to retire to heated buildings for warming sessions. The Observatory maintains two substations in climates where stars can be seen more often. They are located at Richmond, Fla., and Flagstaff, Ariz.

A photographic zenith tube automatically collects and records the necessary data for the Time Service. Rigidly fixed in a vertical position, it takes pictures of stars whose paths cross the instrument's line of sight. From these pictures the Observatory can determine solar time with an accuracy of several thousandths of a second.

Solar time was first determined by sundials. The sun is not easily observed owing to its brightness, and therefore, present day astronomers determine solar time by observing the stars. The position of the stars in relation to the sun is known, so an observation of a star is equivalent to observing the sun.

The ancients knew that when the sun was directly overhead it was mid-day. Scientists now know the exact solar time when certain stars are directly overhead. This is the operating principle of the zenith tube. It takes a picture of the star, and at the same instant registers the Observatory's clock time.

The difference in clock time and solar time will be the clock's error. Dr. William Markowitz, Director of the Time Service Division says, "The stars always tell the right time, and the clock is usually correct to a few thousandths of a second."

The times of exposure of the zenith tube are sent electrically to the clockroom in the main building where the results are later calculated. The clocks in use are divided into two classes. "Primary standards" are clocks of the highest precision. They are used to measure observations made over a long period of time and are not regulated or set.

"Service clocks" are those used for sending and monitoring time signals. They are regulated when necessary, using the corrections supplied by the zenith tube observations.

For about 250 years the pendulum clock was supreme in the field of precision timekeepers. This type clock has recently been replaced at the Observatory by an improved electric clock which uses a quartz crystal. Quartz-crystal clocks aren't much different in principle from ordinary home electric clocks.

'STAR GUNNING'—Navyman visiting Naval Observatory sights through 26-inch refractor whose 32-foot tube aims skyward through slotted dome.

NAVIGATORS base calculations on data prepared by Naval Observatory.

Household clocks are powered directly by the 60-cycle alternating current supplied by power companies. This current varies slightly, however, causing electric clocks to gain or lose time. In the quartz-crystal clock, the crystal stabilizes the extremely accurate pulsating current which runs the clock's motor. Should a power failure occur at the Observatory, standby batteries take over.

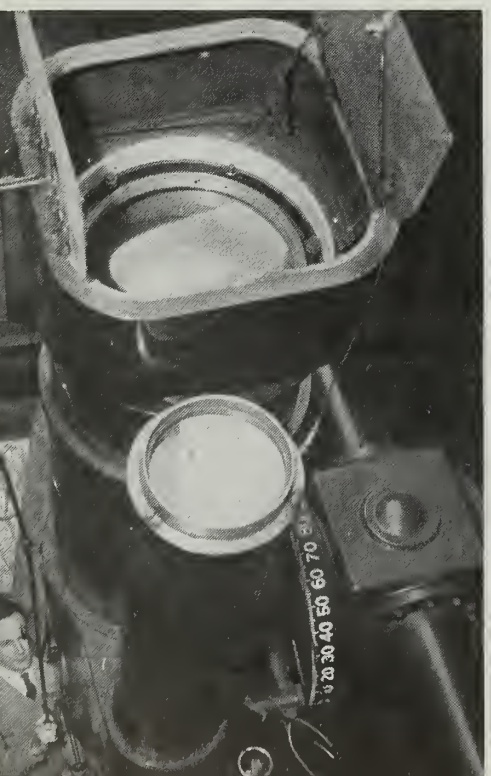
The quartz-crystal service clock is easily advanced or retarded by turning a crank under its face. One turn equals one-thousandth of a second. Until recently, these service clocks sent a time signal by land wire to the naval radio station NSS located at Annapolis, Md., where it was rebroadcast to ships at sea.

Now, however, the Observatory monitors the signal sent out by clocks at the naval radio stations. When these clocks get off beat, the Observatory advises the station of the regulation required.

Ships at sea receive naval radio time signals periodically during the day. As Navymen know, one of the quartermaster's jobs aboard ship is to note the discrepancies between the time registered by the ship's chronometers and the signaled time. He does not reset the chronometers because it's against Navy Regulations to tamper with them aboard ship. Instead, he logs the number of time units that they are fast or slow. Thus, when the navigator needs to know the exact time, he can add or subtract the logged error from the chronometer's reading.

The Time Service has been in continuous operation since 1845 when the first time ball was dropped at the Naval Observatory. Today, in addition to setting time for the nation and for navigators at sea, other uses for this service have arisen.

FIFTEEN-incher is used to photograph star fields. Smaller scope is sight used to check automatic tracking gear.



These include longitude determinations for precise surveying and map making, and gravity determinations for locating minerals and oil. Radio monitoring stations use these signals in checking frequencies of transmitting stations. Seismologists use them in coordinating earthquake data, and watchmakers use them for checking the accuracy of their watches.

The other major function of the Observatory is carried out by its Nautical Almanac Office. Here the positions of the stars are brought down to Earth and arranged for the use of navigators. Combining talents of astronomers and mathematicians, this office is able to predict the positoins of the sun, moon, stars and planets many years in advance.

The largest and most comprehensive annual publication of the office is the *American Ephemeris and Nautical Almanac.* It lists daily positions of the sun, moon, major stars and planets, and many of their satellites, plus information on eclipses and other heavenly happenings that will occur during the year. (The word "ephemeris" means almanac, or a daily listing of occurrences.) Pages in the *Ephemeris* are nearly the same size as the pages in standard telephone books, and the book is about one-inch thick. To an untrained reader, however, the succession of tables in the *Ephemeris* make it less interesting than many phone books.

The labor involved in tabulating this tome is shared among the Almanac Offices of the Naval Observatory and several foreign nations.

Two almanacs are published annually for the use of navigators. One is the *American Nautical Almanac,* designed to be used aboard ship. The other is the *Air Almanac.* The *Air Almanac* is the easiest and quickest to work with, but its tables aren't as precise as those in the other almanacs. It can be used to determine the position of aircraft within a few miles, whereas the *Nautical Almanac* can pinpoint a ship's position within about one mile.

The Almanac Office receives many observations from astronomers in the Equatorial and Transit Circle Divisions. "Equatorial" is the name given to telescopes mounted so that they can be pointed anywhere in the sky. These are general purpose instruments. Transit circle telescopes observe stars and planets for time measurement purposes and for map-

ping their positions. They are mounted so as to view a straight line of sky through the zenith from the north to the south horizon points.

In operation, a star is sighted by the astronomer who places it between a pair of crosshairs in the field of the telescope. Then the star may be tracked visually or a series of photographs may be taken by the telescope's camera.

Information is obtained from photographs by measurements. As many as possible are made with a device called an automatic measuring engine which automatically records the data on punched cards. This card is in turn fed through a machine which prints the data directly in tables thus eliminating typographical errors.

Several other instruments are in use at the Observatory. One draws an outline of the mountains on the moon's outer rim. A photoelectric cell scans the circumference of a moon photograph, and then magnifies what it sees 300 times. This magnification is traced by a pen on a revolving cylinder which contains a roll of paper. The result looks somewhat like a heartbeat as traced by a cardiograph machine.

Dr. Chester B. Watts, inventor of the machine, is in charge of this moon project, which has been going on for 10 years. Dr. Watts said, "The reason we are doing this is to determine the moon's center of figure more closely. We now know within about 400 feet where it is, but that's not close enough."

The "center of figure" of a smooth ball will be the exact center of the ball. Giant mountains and craters, however, make this uncertain in the case of the moon. By measuring the mountains, a closer approximation of the moon's center of figure may be obtained. The exact center will probably never be determined, however. This is because the moon never turns its back on the earth, and therefore, we don't know the condition of the terrain on the other side.

Continuous observations must be made of the sun, moon, stars and planets. Mathematics alone cannot provide accurate calculations of a star's position in relation to the Earth over a number of years. Several factors affect the precision of observation. First, the Earth's rotation is not constant (it has been known to vary as much as one second in a year). The Earth also tends to wander at its poles. Geographic poles have been known to shift 100 to 150 feet from center. These inconsistencies may seem small, but if the Observatory did not continually observe these changes, they could eventually throw the navigator miles off his course.

SHIPS of the Fleet are guided by sun and stars charted at the Observatory.

Another activity which is of continuous nature is the observation of sunspots and brilliant flares that frequently appear on the sun. These are caused by huge storms or eruptions of gas and fire on its surface. Old Sol is photographed daily, weather permitting, and these photographs are studied to obtain a sunspot record. Pertinent information about current conditions on the sun is transmitted to interested agencies daily.

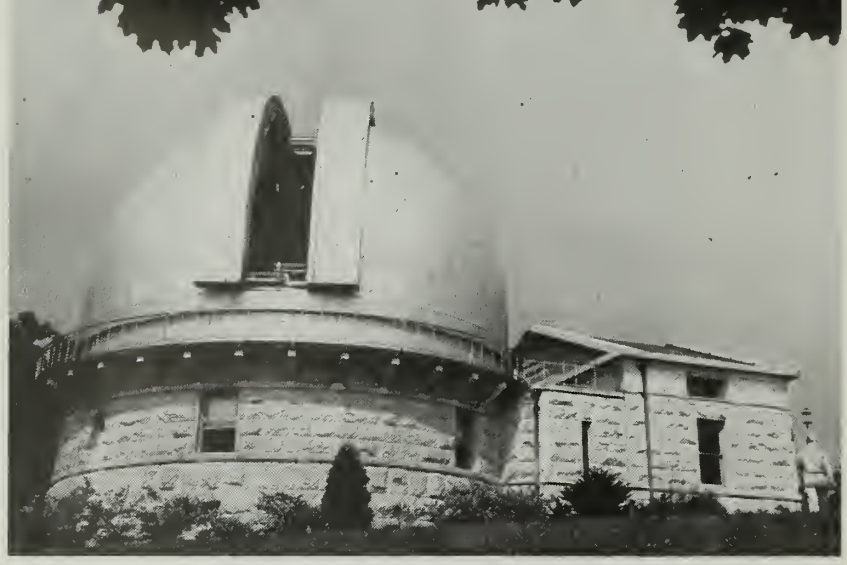
Excessive sunspot activity causes magnetic storms on the Earth. These sharply increase the voltage of land wires. Bright flares, often near large sunspots, cause radio fade-outs or complete blocking of signals on some frequencies. Some scientists think that sunspots affect the amount of rainfall. A check of tree rings in old redwood forests shows greater growth, and therefore greater distances between rings during years of considerable sunspot activity.

Enormous aurora borealis displays are also caused by large sunspots. Social scientists have even tried to attribute certain types of human behavior to the occurrence of the spots. So far, however, astronomers have been unable to account for their mysterious power, or predict their occurrence with accuracy.

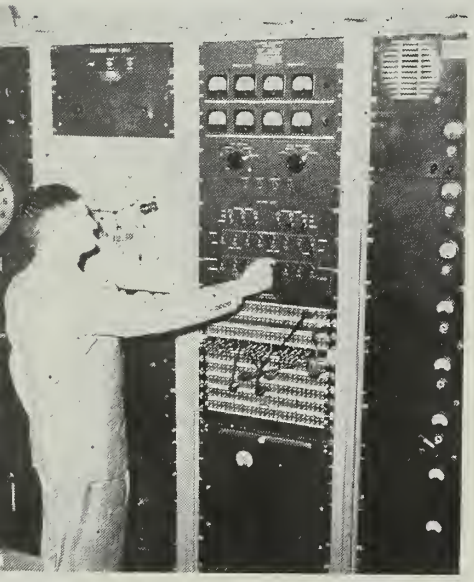
The Observatory has its own repair shop which keeps the astronomical gear in shape. It's also equipped to build special instruments developed by Observatory scientists.

During the crucial months of World War II, this shop assisted in

RECLINING at eye piece of six-inch transit circle, astronomer measures position of sun, moon, bright stars.



DOMED BUILDINGS housing telescopes seem to be fugitives from TV space show. *Below:* Crystal clock and radio monitor are checked by Time Service.



the development and production of thousands of dollars worth of precision instruments that could not be obtained elsewhere. It also inspected and serviced more than 15,000 chronometers, watches, stop-timers and ship's clocks. The repair shop fixed hundreds of damaged pieces of sundry navigational gear such as sextants, binoculars, barometers and compasses. This work is no longer done at the Naval Observatory but is now accomplished in Navy Yards on each coast of the U. S.

Shortly after the war began, the Navy found itself dangerously short of binoculars. A country-wide appeal was made, and the public responded by loaning about 10,000 of these instruments to the government. In return, each donor received a check for one dollar, plus the promise that his instrument would be returned to him in good condition at the end of the war if it had not been lost in action. There were about 135 losses. The remaining glasses were rounded up and sent to the Observatory's shop where they were cleaned, repaired and returned to their owners in first class condition.

Another World War II emergency provided additional work for the Observatory. Many of the foreign observatories that formerly supplied data for the *Ephemeris* were inoperative as a result of the war. The Naval Observatory, therefore, because it had no other choice, picked up some of the specialized work that had previously been done by the overseas observatories.

The value of the Naval Observatory does not rest in the discovery of new stars and planets which may be hidden in the far recesses of the universe. It has gained deep respect, also, for the excellence of its Time Service and Almanac Office publications. Nevertheless, in its early years the Naval Observatory did make one startling discovery in the province of astronomy.

This was in 1877 when Asaph Hall, using the 26-inch telescope, discovered two satellites, like our moon, of the planet Mars. One of these moons remains almost stationary in the Martian sky, while the other one moves backwards around the planet three times a day.

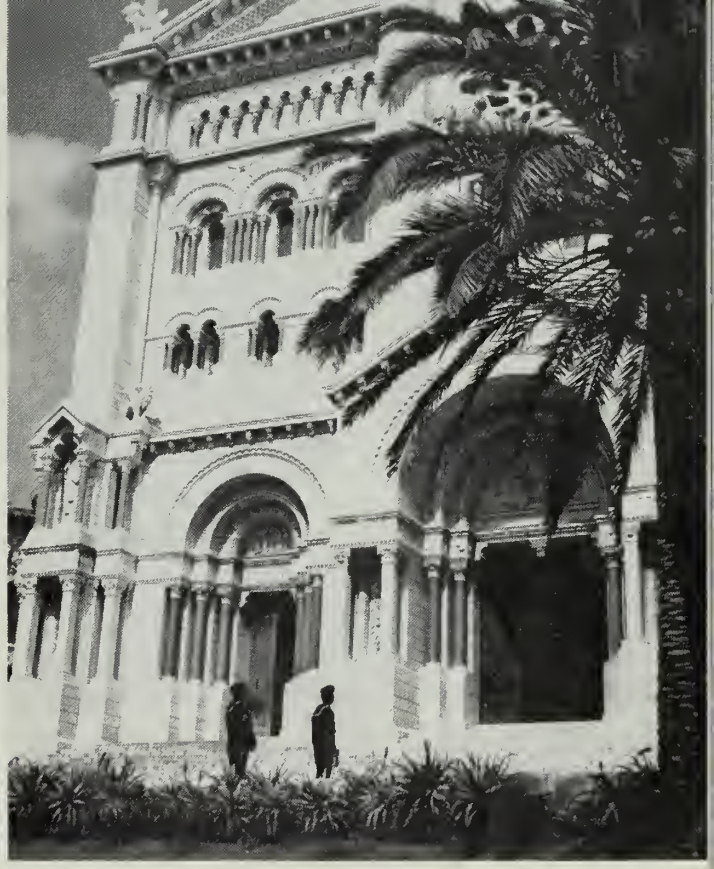
Most of the work done at the Observatory is either too time-consuming or too expensive to be undertaken by private observatories. But "without our fundamental observations," an Observatory astronomer said, "much of the exciting exploratory work of other observatories could not be accomplished."

Fundamental observations will also play an important role in future developments. New electronic weapons and instruments operate at tolerances of the smallest fraction of a second. Therefore, there is a growing demand for more accurate measurements of time.

Supersonic aircraft may require quick, highly accurate navigational methods. And the prospect of space travel, earth satellites, and the like, pose unknown problems. The Observatory's fundamental data gathered over the span of a century will be invaluable to future development.

—George Wells.

TIME SERVICE, whose clocks define time for the Navy and the Nation, is in the administration building. Dome has 12-inch scope for moon study program.



Meet Me in Monaco

MONACO—a name that few people outside of the wealthy who visit Monte Carlo had ever heard of until Grace Kelly became engaged to Prince Rainier III —is old stuff to Navymen who have been cruising the Med with the Sixth Fleet. Since the small principality has been hitting the headlines sailors like W. C. Silliman, EN1(SS), USN, and W. O. Landis, IC3(SS), USN, of *USS Ray* (SSR 271) have been enjoying liberty in Monaco with renewed interest.

Other units of the Fleet visiting nearby French Ports of Villefranche, Nice, Cannes, and Golfe Juan, have also enjoyed the sights of this current center of interest via train and bus trips.

Top Left: City of Monte Carlo rises above Silliman and Landis as they leave their ship. *Top Right:* Sub men visit church where marriage vows were repeated after ceremony at Palace. *Right:* Souvenirs of the event catch their eye. *Below:* From the Palace grounds the Navy sight-seers look down at their sub moored below.

HEAVYWEIGHT CHAMP Roy Louson sends Louis Jones to deck. *Right:* Bob Berdahl (rt) takes one from Gus Fernandes.

New Champs Crowned in All-Navy Bouts

THE CREAM OF NAVY BOXERS from the East and West met in the annual world-wide All-Navy Boxing Championships at the Newport Naval Station at the end of April. After the ring dust had settled, the Westerners had been beaten in nine of the ten bouts as the Eastern battlers bettered their 8-2 performance of last year.

Big guns for the Eastern team were the battling sailors from the Atlantic Fleet Destroyer Force. Six of the nine bouts won by the Eastern team were by the tin can sailors. Also, the only All-Navy champion from last year to defend his title successfully was Roy Louson, SN, USN, of the USS *Sierra* (AD 18).

Louson kept his title in true championship form. He made a slow start in the first round, but by the end of the second round, had his opponone on the deck. The husky Westerner, Louis Jones, AA, USN, of NTC San Diego, managed to survive.

The dead-panned Louson, who boasted a 20-pound weight advantage over the 202-pound Jones, followed up his advantage in the final round, raining lefts and rights to Jones' head. Jones fought back gamely, though unsuccessfully, until a booming right hand sent him to the canvas. Jones was up at the count of nine but was in no condition to defend himself. The referee stopped the bout, awarding Louson a TKO in 2:35 of the third round.

Louson, along with the other nine All-Navy boxing champions, has automatically qualified to enter the American Olympic boxing trials to be held in October in San Francisco. However, these champions must continue to prove themselves worthy of final selection by the Navy for entry in the Olympic Trials. (The Inter-Service Boxing Tournament, which is scheduled for the first week in October, will have no bearing on the Olympic Trials.)

Some 6000 partisan fans filled the Newport gymnasium early to see the Eastern belters win five straight victories before any Western fighter could battle his way to victory. As it turned out, the sixth bout was the only one in which a Westerner could finish as champion.

Jerry Johnson, YN3, USN, from NAS Quonset Point, R. I., opened the night's card with a second round TKO over Rudolfo Alvarado, SA, USN, of NTC San Diego, to win the flyweight title.

Johnson put on a great boxing exhibition, bobbing under everything Alvarado had to throw, and countering effectively with short jabs and two-handed combinations to the body. This strategy by Johnson wore down Alvarado, who failed to answer the bell for the last round.

In the bantamweight division, Ronnie Andrews, SN, USN, of USS *Basilone* (DDE 824), knocked the

ROUND UP OF WINNERS—All-Navy boxing champions line up with their coaches and trainers for photograph after matches at Newport Naval Station.

crown off the head of defending All-Navy champion Glen Ivey, SN, USN, of NTC San Diego, by scoring a unanimous decision. Andrews became a counter-puncher supreme as he frustrated Ivey's aggressiveness with lightning-fast jabs.

Bob Nichols, BM2, USN, from the destroyer USS *C. P. Cecil* (DDR 835), was no newcomer to All-Navy boxing finals. For the past couple of years he had almost reached the summit of Navy boxing, but something always seemed to go wrong. But this time it was a different story.

This year's All-Navy 125-lb. champion withstood the heaviest punches Richard Robinson, SN, USN, of NAS San Diego, could throw and came back with some classy footwork, jabs and combinations to score a unanimous decision.

Tabby Lee, BMSN, USN, also representing the Atlantic Fleet Destroyer Force and USS *Tidewater* (AD 31), kept the Eastern team's victory streak alive as he pounded out a unanimous decision over 17-year-old Billy Martin, AA, USN, of NAS Alameda, Calif.

Duhart Bailey, SD3, USN, from USS *Cascade* (AD 16), won the All-Navy light welterweight championship, but not before absorbing a terrific boxing lesson from former all-Navy champion Abe Haynes, SKSN, USN, of USS *Hancock* (CVA 19). It was youth against experience and the "old-pro" Haynes simply ran out of gas. Haynes had the best of it in the first stanza in what was considered by many as the best fight of the night.

Both boys started out fast, but near the end of the second round, Bailey began to take the play away from Haynes. In the final round, the fast tiring Haynes was no match for his onrushing opponent and Bailey was voted the decision by all judges.

Henry Brown, TN, USN, from USS *Essex* (CVA 9), became the only Westerner to win an All-Navy title this year as he was crowned the welterweight champion. Brown scored a unanimous decision over Humberto Salcido, SA, USN, of NTC Great Lakes.

But the Westerners' moment of victory was short-lived as Bob Berdahl, BM3, USN, from the Newport Naval Station, scored a unanimous decision over Gus Fernandes, SN, USN, of USS *Cape Esperance* (CVE 88). Each fighter appeared overly cautious of the other's impressive KO record. Berdahl did most of the forcing although he was caught with four hard right hooks by Fernandes in the final round. Berdahl copped the decision and was crowned All-Navy light middleweight champ.

In the middleweight scrap, DesLant's Frank Keating, SN, USN, of USS *Sierra* (AD 18) proved a Grade A substitute as he won the title in a battle with defending champion Bob Epperson, AN, USN, from USS *Bennington* (CVA 20). Paradoxically, Epperson won his title last year when he was a member of the Eastern team. Keating, who was a last minute substitute for Pat Moynihan, kept Epperson off balance throughout the fight with his free wheeling hooks.

In the closest fight of the night, Phil Ness, SA, USN, from NTC Great Lakes, gained a split-decision verdict over James Partee, TM3, USN, from USS *Bennington* (CVA 20), to win the light heavyweight championship. Partee's slow start in the first round cost him dearly. Ness took advantage of his opponent's slow start to score effectively with solid lefts and rights to head. Partee rallied to battle Ness to a standstill in the second round. In the third, Partee actually outpunched his opponent but Ness' fast start and his clever right-hand leads gained him the victory.

These 10 All-Navy champions, along with a number of other top Navy ring prospects will gather in Newport again this summer to begin training for the Olympic tryouts.

Here's the list of this year's All-Navy champions:

Flyweight—Jerry Johnson, YN3, USN, NAS Quonset Point, R .I.

Bantamweight—Ronald Andrews, SN, USN, USS *Basilone* (DDE 824).

Featherweight—Bob Nichols, BM2, USN, USS *Charles P. Cecil* (DDR 835).

Lightweight—Tabby Lee, BMSN, USN, USS *Tidewater* (AD 31).

Light Welterweight — Duhard Bailey, SD3, USN, USS *Cascade* (AD 16).

Welterweight—Henry Brown, TN, USN, USS *Essex* (CVA 9).

Light Middleweight—Bob Berdahl, BM3, USN, Newport Naval Station.

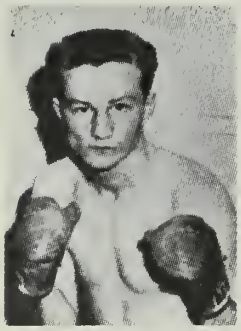
Middleweight—Frank Keating, SN, USN, USS *Sierra* (AD 18).

Light Heaveyweight — Phil Ness, SA, USN, NTC Great Lakes, Ill.

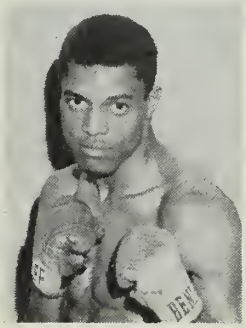
Heavyweight—Roy Louson, SN, USN, USS *Sierra* (AD 18).

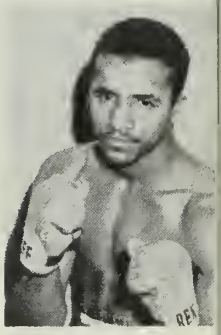
—Joe Diamond, JOSA, USN.

ALL-NAVY CHAMPS

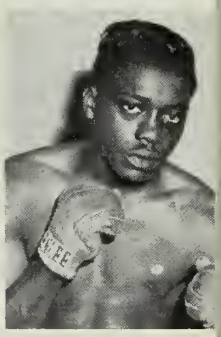


Jerry Johnson, YN3; Ronald Andrews, SN

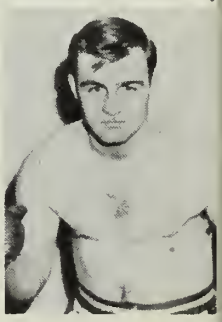




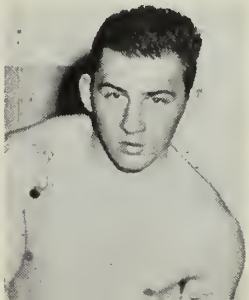
Bob Nichols, BM2; Tabby Lee, BMSN

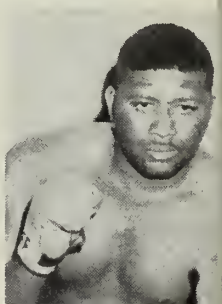


Duhard Bailey, SD3; Henry Brown, TN



Bob Berdahl, BM3; Frank Keating, SN Below: Phil Ness, SA; Roy Louson, SN





CAN'T KEEP UP with this Navyman. B. M. Molyneaux, AD1, USN, poses with his record-breaking motorcycle.

Sailor Cyclist Breaks Record

Bates M. Molyneaux, AD1, USN, of NAAS Kingsville, Tex., won a record-breaking victory in the American Motorcycle Association's 100-mile beach and road race for amateur riders. The race was held at Daytona Beach, Fla.

The red-headed speedster averaged 93.58 mph around the hazardous 4.1-mile course and finished a scant six seconds ahead of a runner-up Jack Schlaman of Riverside, Calif. The old record broken by the motorcycle-riding sailor was 92.43 mph.

Molyneaux was in the lead for most of the race and was ahead on 21 of the 24 laps. Molyneaux and runner-up Schlaman blistered the beach and road straightaway at better than 115 mph and were almost wheel-to-wheel for most of the last 50 miles.

The 25-year-old aviation machinist's mate rode a Harley-Davidson KR to victory. After the race, Molyneaux' machine passed the rigid inspection by the AMA technical officials. It's a 45-cubic-inch side-valve model with an estimated top speed of more than 120 mph.

A field of 60 amateurs (that is, American Motorcycle Association riders who have not been in national competition for two years) started the race, but physical strain on the drivers and mechanical troubles eliminated all but 21 of the riders of the high-powered machines.

Molyneaux, a veteran of over nine years' naval service, first rode a motorcycle in 1950 when he was stationed at NAS Barber's Point, Hawaii. "From that time on," stated Molyneaux, "it has been my hobby. Soon after that first ride, I went out and bought my own motorcycle. Since then, I've owned 15 different motorcycles," he added.

Molyneaux acted as his own mechanic since his regular mechanic, Charlie McKinzie of Corpus Christi, Texas, didn't make the trip.

Bainbridge Looks Good

The Commodores of NTC Bainbridge, Md., foresee a highly successful baseball season since Brooklyn's World Series pitching star Johnny Podres reported aboard. Podres, now an SR undergoing recruit training at Bainbridge, is expected to be the mainstay of the Commodore pitching staff.

Besides the Brooklyn southpaw ace, Bainbridge has seven-game winner Bob Quinn returning from last year and portsider Herman West. who played with Jacksonville and the Minneapolis Millers last season.

In the other departments, Bainbridge boasts of catcher Al Teiglitz, New York Giant farmhand, Lou Esposito, first baseman, property of the Baltimore Orioles, and outfielders Bill McGhee, veteran of eight years' pro ball, and Jim Randolph, property of the BoSox, who played with Aberdeen in the Northern League last year.

Other infielders Coach "Biff" Bennett is counting on include Frank Cassavell, Thomas Raimondo, and Frank Sylvester. Cassavell was the regular Commodore shortstop and has a good chance to hold his position. He's an excellent glove man. Raimondo played with Corning, N. Y., in the Class D Pony League last year where he hit .295. Sylvester is both a good hitter and fielder and could hold the key to a tight Commodore infield. Frank Pudina is pushing both men for a spot around the keystone sack.

AT BAINBRIDGE—Johnny Podres, Dodger pitching star of '55 World Series, chats with catcher Hal Steiglitz who played last year with Giants' farm club.

Track and Field

You'll have a chance to see some of the world's finest track and field athletes in action if you're in the San Diego or Los Angeles area this month. The Inter-Service Track and Field Meet will be held on 14-15 June and the final American Olympic Trails will be held 29-30 June. Both events will be staged at the Los Angeles Coliseum.

The Navy's top track men have been assembled at NTC San Diego and will compete in the Inter-Service championships. The winners of first, second and third place in the Inter-Service will be invited to compete in the Olympic trials two weeks later.

Navy's chances of placing men on both the Inter-Service and Olympic teams appear to be better than good. Counted among the sea-service thinclads are two of the nation's leading hurdlers, a national decathlon champ and many potentially great runners.

Leading Navy's efforts will be 1952 Olympian LTJG Jack Davis, USNR, and Milton C. Campbell, SA, USN, 1952 National AAU decathlon champion and 1955 AAU and NCAA high hurdles champion.

In the sprints, Fred Lucas, SN, USN, 1954 Inter-Service champ, has posted a 9.6 mark in the century and a 20.7 in the 220-yard dash. Ed Walter, SA, USN, has been close on the heels of Lucas with a 9.7 mark in the 100-yard dash and 21.1 in the 220. Campbell has run the 220 in 21.4.

Lionel Daniels, SA, USN, has shown well in the low hurdles, with his best time 23.2 in the 220-yard low hurdles. Fred Miller, MUSN, USN, has been timed in 24.8 in this event and should improve by tournament time.

Dick Foerster, SN, USN, has posted a 1:51.0 in the 880-yard run and Stephen Murphy has a 1:52.4 time in that event. In the long distance running, Joe Tyler, SN, USN, is given a good chance to place. Tyler's best time in the two-mile run is a respectable 9:12 while his time in the 5000 meter run is 14:57.0. In the high jumping department, LTJG Barney Dyer, USNR, must be reckoned with. His best jump to date has cleared 6 feet 8¾ inches.

Stan Winters, Athletic Director at the Naval Training Center, San Diego, has been appointed as coach for the Navy track and field squad.

In case you haven't obtained your ticket yet and don't know where to find one, check with the 11th ND Special Services Office.

SIDELINE STRATEGY

BOXING HELD THE NAVY SPORTS spotlight when the All-Navy boxing championships were staged in Newport, R. I. Naturally, a majority of the fight followers in the Navy weren't able to attend. If you're one of the ones who missed out, you'll probably have a chance to see the bouts anyway, if you're overseas or serving aboard ship. The Navy is distributing on the Fleet circuit a film of the championship fights, and ships or overseas stations will have a chance to book these films.

★ ★ ★

Destroyer sailors from the Atlantic Fleet certainly displayed their strong right hands as six DesLant fighters won All-Navy championships this year. Last year's winning Atlantic Fleet boxing squad was bulwarked by the DesLant team. Ronnie Andrews, Tabby Lee, Bob Nichols, Roy Louson, Frank Keating and Duhart Baily will all tell you that much of the credit for their championships belong to trainer "Murphy" Griffiths, SD1, USN, and Al Gibbs, FPC, USN.

Roy Louson, SN, USN, of the destroyer tender USS *Sierra* (AD 18) was the only champion from last year to retain his title. Heavyweight Louson scored a TKO in the third round over Louis Jones of the 11th Naval District.

★ ★ ★

The only "repeater" in Navy bowling this year was Norm Nicholson, SO1, USN, now serving in USS *Bache* (DDE 470). Last year, Nick was a member of the All-Navy team that won the Inter-Service tenpin title. This year, Nicholson had a 1017 total pinfall for five games to win the All-Navy Eastern singles championship. Later he teamed with PFC Frank S. Ronallo, USMC, of USS *Intrepid* (CVA 11) to win this year's All-Navy Eastern doubles title.

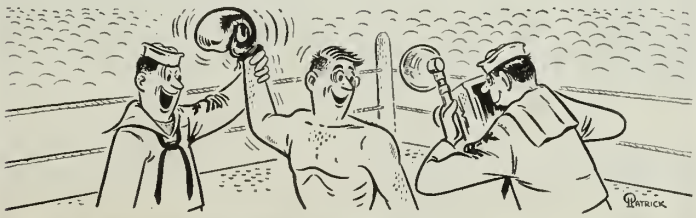
★ ★ ★

It was with a bit of sadness that we read a news release recently about the Packers from the Pearl Harbor Submarine Base. For the first time in many a season, the Pacific Submarine sailors will not field a baseball team. Old timers will have to dig far back in their memory files to remember the year SubPac last failed to field a team.

One of the oldest, if not the oldest, of service teams in the Hawaiian Islands, SubPac could always be counted on in previous years to put a pennant contender on the field. SubPac's was always "the game of the day" no matter whom they played.

In the final analysis, SubPac didn't lose a team; only the sponsorship of a team. The people who lost the team were the loyal SubPac fans. But there weren't enough of these loyal fans. It was felt that the money needed to support a ball club was not justified from the spectator participation angle. Working on the basis of "the best for the most," emphasis this year will be on intramural softball and baseball.

—Rudy C. Garcia, JOC, USN.



1956 Voting Information on Primary anc

STATE	** MINIMUM AGE	** MINIMUM RESIDENCE REQUIREMENTS	** OTHER REQUIREMENTS	* MUST SERVICEMAN REGISTER BEFORE VOTING?	** IS REGISTRATION PERMANENT?	* IS REGISTRATION PERMITTED BY MAIL?	* HOW DOES SERVICEMAN BECOME REGISTERED?	** WHO MAY VOTE BY ABSENTEE BALLOT?
ALABAMA	21	2 yrs. in S; 1 yr. in C; 3 mos. in P	RV; pay PT, except AFP; read & write U. S. Constitution in English	YES	YES	NO	*In person* only at office of Board of Registrars on the first and third Monday of each month	AFP, wives & hospital vets
ARIZONA	21	1 yr. in S; 30 days in C; 30 days in P	RV; read U.S. Constitution; write name	YES	YES SEE NOTE 1	YES	Request affidavit of registration from Recorder any time prior to 3 mos. before Primary E or 5th Mondays before General E	All persons
ARKANSAS	21	1 yr. in S; 6 mos. in C; 30 days in P	Pay PT, except AFP	THERE ARE NO REGISTRATION REQUIREMENTS FOR ANYONE IN ARKANSAS				All persons
CALIFORNIA	21	1 yr. in S; 90 days in C; 54 days in P	RV	NO	YES SEE NOTE 1	YES	Registration is automatic when executed registration certificate which accompanies ballot has been accepted by election officials	All persons
COLORADO	21	1 yr. in S; 90 days in C; 15 days in P	RV	YES	YES SEE NOTE 1	YES	Request "Application to Register by Mail" from C Clerk. Recommended request for form be made at least 90 days before E	All persons
CONNECTICUT	21	1 yr. in S; 6 mos. in Town or City	RV; read State Constitution in English	YES	YES SEE NOTE 1	YES	Request registration form from Town, Borough, or City Clerk at any time prior to E	All persons
DELAWARE	21	1 yr. in S; 3 mos. in C; 30 days in P	RV; read State Constitution in English; write name	NO	NO	YES	Registration is automatic when executed registration certificate which accompanies ballot has been accepted by election officials	All persons
FLORIDA	21	1 yr. in S; 6 mos. in C	RV	YES	YES in some C	NO	Re-registration permitted by mail. Registration must be made in person at Office of Supervisor of Registrations at any time prior to 30-day period before an E	All persons
GEORGIA	18	1 yr. in S; 6 mos. in C	RV; read and write in English U. S. and State Constitutions	YES	YES since 1948 SEE NOTE 1	YES	Apply to C Tax Collector for "Military Registration Card" at any time before an E	All persons
IDAHO	21	6 mos. in S; 30 days in C	RV; read & write English	NO	YES SEE NOTE 1	YES	Registration is automatic, when marked ballot is accepted by election officials	All persons
ILLINOIS	21	1 yr. in S; 90 days in C; 30 days in P	RV, except AFP	NO	YES SEE NOTE 1	Not required except in Municipal E	Armed Forces personnel not required to register except in Municipal E	All persons
INDIANA	21	6 mos. in S; 60 days in Ts; 30 days in P	RV	NO	YES	YES	Registration is automatic when an application for an absentee ballot has been accepted by election officials	All persons
IOWA	21	6 mos. in S; 60 days in Land, for Municipal or Special E 30 days in P	RV in some cities	NO	VARIES SEE NOTE 2	YES	Registration is automatic when marked ballot and the executed affidavit on back of ballot envelope have been accepted by election officials	All persons
KANSAS	21	6 mos. in S; 30 days in Ward or Ts	RV in some cities except AFP, MM, CC, & Ds in Primary & General E	NO	VARIES SEE NOTE 2	NOT REQUIRED	Armed Forces personnel not required to register	All persons
KENTUCKY	18	1 yr. in S; 6 mos. in C; 60 days in P	RV	NO	YES SEE NOTE 1	YES	Registration is automatic when application for absentee ballot has been accepted by election officials	All persons
LOUISIANA	21	2 yrs. in S; 1 yr. in Parish; 3 mos. in P	RV	YES	YES SEE NOTE 2	NO	Only *in person*, at place of Louisiana residence at any time prior to 30 days before an E	AFP & wives
MAINE	21	6 mos. in S; 3 mos. in Town or C	RV; read & write English	NO	YES	YES	Registration is automatic when an application for an absentee ballot has been accepted by election officials	All persons
MARYLAND	21	1 yr. in S; 6 mos. in C or City	RV	NO	YES SEE NOTE 1	YES	Registration is automatic when executed affidavit on back of ballot envelope of returned ballot has been accepted by election officials	AFP, MM, & CC
MASSACHUSETTS	21	1 yr. in S; 6 mos. in City or Town	RV; read State Constitution; write English	NO	YES	YES	Registration is automatic when an application for an absentee ballot has been accepted by election officials	All persons
MICHIGAN	21	6 mos. in S; 30 days in City or Ts	RV	YES	YES SEE NOTE 1	YES	Request "Duplicate Registration Cards" from City, Ts, or Village Clerk and return them prior to 30th day preceding E	All persons
MINNESOTA	21	6 mos. in S; 30 days in E District	RV in certain Cities	YES	YES SEE NOTE 2	YES	Request "Registration Application" form from City Clerk or Commissioner of Registration prior to 20-day period preceding an E	AFP, MM, CC, & Ds (all others if in U. S.)
MISSISSIPPI	21	2 yrs. in S; 1 yr. in E District	RV; pay PT except AFP, also MM, CC, & wives when voting absentee; read and understand State Constitution	NO	YES	YES	Request "Registration Form" from City or C Registrar when applying for absentee ballot	All persons
MISSOURI	21	1 yr. in S; 60 days in C, City or Ts	RV in cities over 10,000, except AFP	NO	YES SEE NOTE 2	NOT REQUIRED	Armed Forces personnel not required to register	All persons
MONTANA	21	1 yr. in S; 30 days in C City, and Ts	RV	YES	YES SEE NOTE 1	YES	Apply to C, City, or T Clerk for "Registration Card" at any time and return it prior to 45-day period before E	AFP, MM, & CC (all others if in U. S. or Territories)
NEBRASKA	21	6 mos. in S; 40 days in C; 10 days in P	RV in cities over 7,000 pop.	NO	VARIES	YES	Request "Registration Forms" from C Clerk when applying for absentee ballot	All persons
NEVADA	21	6 mos. in S; 30 days in C; 10 days in P	RV	YES	YES SEE NOTE 1	YES	Upon receipt of request for absentee voter's ballot, unregistered AFP will be forwarded an "Affidavit of Registration" which must be returned in separate envelope to C Clerk	All persons
NEW HAMPSHIRE	21	6 mos. in S; 6 mos. in P	Have name on "Voters' Check List"	NO	YES	YES	Name will be placed on check list automatically when application for ballot has been accepted by election officials	All persons
NEW JERSEY	21	1 yr in S; 5 mos. in C	RV, except AFP	YES	YES SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	All persons
NEW MEXICO	21	1 yr. in S; 90 days in C; 30 days in P	RV	YES	YES SEE NOTE 1	YES	Request "Registration Affidavit" from C Clerk at any time and return it prior to 30th day before E	No one
NEW YORK	21	1 yr. in S; 4 mos. in C; 30 days in P	RV, except AFP & Ds; citizenship for 90 days, proof of literacy except AFP	NO	NO, except in Nassau & Broome C	YES	Registration is automatic when an application for an absentee ballot has been accepted by election officials	All persons
NORTH CAROLINA	21	1 yr. in S; 30 days in P	RV; read & write State Constitution	NO	YES	YES	Registration is automatic when application for ballot has been accepted by election officials	All persons
NORTH DAKOTA	21	1 yr. in S; 90 days in C; 30 days in P	RV except AFP & MM, others local E only	NO	NO	NOT REQUIRED	Armed Forces personnel not required to register	All persons
OHIO	21	1 yr. in S; 40 days in C; 40 days in P	RV in some C except AFP	NO	YES SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	All persons
OKLAHOMA	21	1 yr. in S; 6 mos. in C; 30 days in P	RV except AFP, MM, CC & Ds	NO	YES SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	All persons
OREGON	21	6 mos. in S	RV; read & write English	NO	YES SEE NOTE 1	YES	Registration is automatic when properly executed oath on return envelope forwarded with absentee ballot, is accepted by election officials	All persons
PENNSYLVANIA	21	1 yr. in S; 2 mos. in P	RV, except AFP	NO	YES SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	AFP, hospital or bedridden vets
RHODE ISLAND	21	1 yr. in S; 6 mos. in Town or City	RV, except AFP, MM, CC, & Ds	NO	YES since 1952 SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	All persons
SOUTH CAROLINA	21	2 yrs. in S; 1 yr. in C; 4 mos. in P	RV; read & write State Constitution, or own $300 in property	YES	YES for 10 years	YES	Request registration card from Board of Registrations, executed application must be received back not later than 30 days before E	AFP, MM, & CC
SOUTH DAKOTA	21	5 yrs. in U.S.; 1 yr. in S; 90 days in C; 30 days in P	RV	YES	YES SEE NOTE 1	YES	Request "Registration Affidavit" form from C Auditor, executed application must be received back not later than 20 days before E	All persons

ABBREVIATIONS USED IN CHART

AFP Armed Forces Personnel. Military personnel serving in the Army, Navy, Air Force, and Marine Corps. (Also members of the Coast Guard where the State law includes them as part of the Armed Forces.)

C County or Counties

CA Constitutional Amendment(s)

CC Certain Civilians. Those civilians assigned or attached to the Armed Forces who under State law are given absentee voting privileges similar to Armed Forces Personnel

Con Del Convention Delegate

Ds Dependents

Dem Democratic

E Election

F Federal

FPCA Federal Post Card Application (Form 76)

L Local

MM Merchant Marine Personnel. Generally those employed for duty other than on the Great Lakes or Inland Waterways

P Precinct

Pres Pref Presidential Preference

PT Poll Tax

R Residence

Rep Republican

General Elections for the Armed Forces

** IS ABSENTEE VOTING PERMITTED IN:		1956 ELECTIONS		* APPLICATION FORM FOR REQUESTING BALLOT	* EARLIEST DATE APPLICATION WILL BE ACCEPTED AND OFFICIAL TO WHOM SENT	* EARLIEST DATE STATE WILL MAIL BALLOT TO VOTER	* MARKED BALLOT WILL BE ACCEPTED BY STATE VOTING OFFICIAL AS LATE AS—	STATE
PRIMARY ELECTION?	GENERAL ELECTION?	PRIMARY ELECTION	GENERAL ELECTION					
YES	YES	1 May—F, S, Con Del & Committeemen; Pres Prim 29 May—Runoff	6 Nov—F & S; CA	FPCA	40 days before E to C Register in Equity	21 days before E	Day of E	ALABAMA
YES	YES	11 Sep—F, S, L & Precinct Committeemen	6 Nov—F, S, & L	FPCA	30 days next preceding Saturday before E to C Recorder	30 days before E	6:00 P. M. day of E	ARIZONA
YES	YES	31 July—F, S, & L 14 Aug—Runoff	6 Nov—F, S, & L; CA	FPCA	60 days before E to C Clerk	15 days before Primary E (if in US) 20 days before Primary E (if outside US) 30 days before General E	6:30 P. M. day of E	ARKANSAS
YES	YES	5 June—F, S, & L Pres Primary	6 Nov—F, S, & L	FPCA	Any time before E to C Clerk	20 days before E	16 days after E SEE NOTE 3	CALIFORNIA
YES	YES	11 Sep—F, S, & L	6 Nov—F, S, & L	FPCA	90 days before E to C Clerk	30 days before E	5:00 P. M. day of E	COLORADO
NO	YES	Varies	6 Nov—F, S, & L	FPCA	2 months before E to T Clerk for T & State E; City Clerk for City E & Borough Clerk for Borough E	2 months before E	6:00 P. M. day before E	CONNECTICUT
NO	YES	25 Aug—F, S, & L	6 Nov—F, S, & L	FPCA	Any time to Department of E, C of R	60 days before General E	12:00 (noon) day of E	DELAWARE
YES	YES	8 May—F, S, & L 29 May—Runoff, Con Del Committeemen; Pres Primary	6 Nov—F, S, & L; CA; RQ	FPCA	Any time except the 5 days preceding E to SuR, C of R	45 days before E	5:00 P. M. on day before E	FLORIDA
YES	YES	12 Sep—F & S	6 Nov—F & S	FPCA	Any time before E to C Registrar for Primary E and C Probate Judge for General E	As soon as printed	Day of E	GEORGIA
YES	YES	14 Aug—F & S	6 Nov—F & S; CA	FPCA	60 days before E to C Clerk	30 days before E	Day of E	IDAHO
YES	YES	10 Apr—F, S, L, Con Del & Committeemen; Pres Primary	6 Nov—F, S, & L; CA	FPCA	100 days before E to C Clerk	45 days before E	Day of E	ILLINOIS
YES	YES	8 May—F, S, L & Committeemen; Pres Pref	6 Nov—F, S, & L	FPCA	30 days prior to Primary E 60 days prior to General E to Clerk of Circuit Court	30 days prior to Primary E 60 days prior to General E	6:00 P. M. day of E	INDIANA
YES	YES	4 June—F, S, & L	6 Nov—F, S, & L; RQ	FPCA	Any time to C Auditor	40 days before E	Last day prior to day of E	IOWA
YES	YES	7 Aug—F, S, L & Committeemen	6 Nov—F, S, & L; CA	FPCA	120 days prior to Primary E 65 days prior to General E to Secretary of State	21 days prior to Primary E 25 days prior to General E	1:00 P. M. day before E	KANSAS
YES	YES	29 May—F	6 Nov—F	FPCA	Any time except 10 days before E to C Court Clerk	As soon as available	Day of E	KENTUCKY
YES	YES	17 Jan—S & Committeemen 31 Feb—Runoff 31 Jul—F & S 4 Sep—Runoff	17 Apr—S; CA 6 Nov—F & S	FPCA	Any time to Clerk of Parish Court	30 days before E	Day of E	LOUISIANA
YES	YES	18 June—F, S, & L	10 Sep—F, S, & L; RQ 6 Nov—F	FPCA	Any time to Town or City Clerk	30 days prior to Primary & State E 45 days prior to Presidential E	Day of E	MAINE
YES	YES	7 May—F & S Pres Pref	6 Nov—F & S; CA	FPCA	Any time before E to Sec. of State, Annapolis, Md.	55 days before E	Day of E	MARYLAND
NO	YES	24 Apr—Con Del & Committeemen; Pres Prim 18 Sep—F, S, & L	6 Nov—F, S, & L	FPCA	Any time to City or Town Clerk	In time to vote and return ballot	Day of E	MASSACHUSETTS
YES	YES	7 Aug—F, S, & L	6 Nov—F, S, & L	FPCA	75 days before E to City or Ts Clerk	45 days before E	Day of E	MICHIGAN
YES	YES	20 May—Con Del; Pres Pref 11 Sep—F, S, & L	6 Nov—F, S, & L; CA	FPCA	45 days before E to C Auditor	As soon as available	Day of E	MINNESOTA
YES	YES	28 Aug—F & S 18 Sep—Runoff	6 Nov—F & S	FPCA	60 days before E to City or C Registrar	60 days before Primary E 30 days before General E	Day of E	MISSISSIPPI
YES	YES	7 Aug—F, S, & L	6 Nov—F, S, & L; CA	FPCA	Any time to Clerk of C Court	60 days before E	6:00 P. M. day *after* E	MISSOURI
YES	YES	5 Jun—F, S, & L Pres Pref	6 Nov—F, S, & L; CA	FPCA	45 days prior to E to C, City or T Clerk	30 days before E	Day of E	MONTANA
YES	YES	15 May—F, S, & Con Del; Pres Pref	6 Nov—F & S; CA	FPCA	90 days before E to C Clerk (E Commissioner in Douglas & Lancaster C)	15 days before E	10:00 A. M.—2d Thursday after E SEE NOTE 4	NEBRASKA
YES	YES	4 Sep—F, S, & L	6 Nov—F, S, & L; CA; RQ	FPCA	90 days before E to C Clerk	As soon as printed	Day of E	NEVADA
NO	YES	13 Mar—Pres Primary & Constitutional Con E; Con Del 11 Sep—F, S, & L	6 Nov—F, S, & L	FPCA	Any time to Sec. of State, Concord, N. H.	20 days before E	Day of E	NEW HAMPSHIRE
YES	YES	17 Apr—F, L, & Con Del; Pres Pref	6 Nov—F & L	FPCA	Any time to C Clerk	24 days before E	Day of E	NEW JERSEY
NO	NO	8 May—F, S, & L	3 Apr—L, Municipal E 6 Nov—F, S, & L	NO ABSENTEE VOTING PERMITTED IN THE STATE OF NEW MEXICO BY ANYONE				NEW MEXICO
NO	YES	5 Jun—F, S, L, Con Del & Committeemen Pres Primary	6 Nov—F, S, & L	FPCA	Any time to Sec. of State, Albany 1, N. Y.	40 days before General E	12:00 (noon) day before E	NEW YORK
YES for AFP & wives MM. & CC	YES	26 May—F & S 23 Jun—Runoff	6 Nov—F & S; CA	FPCA	Any time to Chairman, C Board of Elections	60 days before E	3:00 P. M. day of E	NORTH CAROLINA
YES	YES	26 Jun—F, S, & L; CA; RQ	6 Nov—F, S, & L; RQ	FPCA	30 days before E to C Auditor	21 days before E	20 days *after* E	NORTH DAKOTA
YES	YES	8 May—F, S, L, Con Del & Committeemen Pres Primary	6 Nov—F, S, & L; CA	FPCA	1 Jan to Clerk, C Board of Elections	60 days before E	12:00 (noon) day of E	OHIO
YES	YES	3 Jul—F & S; RQ 24 Jul—Runoff	6 Nov—F & S	FPCA	Any time to Sec. of State, Okla. City, Okla.	As soon as available	7:00 P. M. day of E	OKLAHOMA
YES	YES	18 May—F, S, L, Con Del & Committeemen Pres Pref	6 Nov—F, S, & L; CA; RQ	FPCA	60 days before E to C, City or T Clerk	60 days before E	5 days before day of E	OREGON
YES	YES	24 Apr—F, S, Con Del & Committeemen Pres Pref	6 Nov—F & S	FPCA	Any time to Sec. of State, Harrisburg, Pa., or to C Board of E, C of R	At least 25 days before E	10:00 A. M. 2d Friday	PENNSYLVANIA
NO	YES	17 Sep (Rep)—F, S, L, & Committeemen 30 Sep (Dem)—F, S, L, & Committeemen	6 Nov—F, S, & L; RQ	FPCA	Any time to Sec. of State, Providence, R. I.	About 20 days before E	Dec 4 SEE NOTE 3	RHODE ISLAND
YES	YES	12 Jun—F	6 Nov—F	FPCA	Any time to Board of Registration, C of R for General E & to Party County Chairman for Primary E	As soon as available	Day of E	SOUTH CAROLINA
YES	YES	5 Jun—F, S, L, Con Del & Committeemen Pres Primary	6 Nov—F, S, & L; CA	FPCA	Any time to C Auditor	At least 20 days before Primary E At least 70 days before General E	Day of E	SOUTH DAKOTA

RQ Referendum Question
RV Registered Voter
S State
SuR Supervisor of Registration
T Town
Ts Township

* Information applies PRIMARILY TO AFP; in some cases it may also apply to others.

** Information applies to ALL PERSONS.

NOTES

[1] If person votes with prescribed regularity

[2] In certain cities and/or counties

[3] Ballot must be voted and/or postmarked not later than day of E

[4] Marked ballot envelope must be postmarked not later than midnight of day before E

STATE	** MINIMUM AGE	** MINIMUM RESIDENCE REQUIREMENTS	** OTHER REQUIREMENTS	* MUST SERVICEMAN REGISTER BEFORE VOTING?	** IS REGISTRATION PERMANENT?	* IS REGISTRATION PERMITTED BY MAIL?	* HOW DOES SERVICEMAN BECOME REGISTERED?	** WHO MAY VOTE BY ABSENTEE BALLOT?
TENNESSEE	21	1 yr. in S; 3 mos. in C	RV	NO	YES SEE NOTE 1	YES	Registration is automatic when an absentee Armed Forces ballot is voted	All persons
TEXAS	21	1 yr. in S; 6 mos. in C	Pay PT	THERE ARE NO REGISTRATION REQUIREMENTS FOR ANYONE IN TEXAS				All persons
UTAH	21	1 yr. in S; 4 mos. in C; 60 days in P	RV	NO	YES SEE NOTE 1	YES	Registration is automatic when executed affidavit on back of ballot envelope has been accepted by election officials	All persons
VERMONT	21	1 yr. in S	Have name on "check list" of voters	YES	YES	YES	Request documents for taking Freeman's Oath from City or T Clerk at any time. Name will be placed on "check list" when executed oath has been accepted by Board of Selectmen	All persons
VIRGINIA	21	1 yr. in S; 6 mos. in C; 30 days in P	Pay PT, except AFP; RV, except AFP	NO	YES	NOT REQUIRED	Armed Forces personnel not required to register	All persons
WASHINGTON	21	1 yr. in S; 90 days in C; 30 days in P	RV; read & speak English	NO	YES SEE NOTE 1	YES	Registration is automatic when executed registration certificate which accompanies ballot has been accepted by election officials	All persons
WEST VIRGINIA	21	1 yr. in S, 60 days in C; 60 days in P	RV	YES	YES SEE NOTE 1	YES	Request "Temporary Registration" form from Clerk of C Court at any time, executed form must be received back not later than 10 days before E	All persons
WISCONSIN	21	1 yr. in S; 10 days in P	RV, except AFP MM, CC, & Ds	NO	YES if required SEE NOTE 1	NOT REQUIRED	Armed Forces personnel not required to register	All persons
WYOMING	21	1 yr. in S, 60 days in C; 10 days in P	RV; read State Constitution	NO	YES SEE NOTE 1	YES	Registration is automatic for voting in General Election when executed affidavit on back of absentee ballot envelope has been accepted by election officials	AFP, MM, & CC (all others if in U. S. or Territories)
ALASKA	21	1 yr. in Territory; 30 days in P	RV in certain municipal E; read U. S. Constitution; write English	YES for certain municipal E	NO	NO	Apply *in person* at seat of local government	All persons
GUAM	18	2 yrs. in Territory	RV	NO	YES	YES	Registration is automatic when properly executed affidavit on absentee ballot has been accepted by election officials	All persons
HAWAII	21	1 yr. in Territory; 3 mos. in Representative Dist.	RV, read, write English or Hawaiian	YES	YES SEE NOTE 1	YES	Request "Affidavit of Application for Registration" from T Clerk, executed application must be received back not later than 5th Friday before Primary E or 4th Wednesday before General E	All persons
PUERTO RICO	21	1 yr in Territory	RV	YES	YES	NO	Apply *in person* to local Board of Elections	No one
VIRGIN ISLANDS	21	1 yr in Territory	RV read & write	YES	YES	NO	Apply *in person* to local Registration Board	No one

ABBREVIATIONS USED IN CHART

- **AFP** Armed Forces Personnel; Military personnel serving in the Army, Navy, Air Force, and Marine Corps. (Also members of the Coast Guard where the State law includes them as part of the Armed Forces.)
- **C** County or Counties
- **CA** Constitutional Amendment(s)
- **CC** Certain Civilians. Those civilians assigned or attached to the Armed Forces who under State law are given absentee voting privileges similar to Armed Forces Personnel.
- **Con Del** Convention Delegate
- **Ds** Dependents
- **Dem** Democratic
- **E** Election
- **F** Federal
- **FPCA** Federal Post Card Application (Form 76)
- **L** Local
- **MM** Merchant Marine Personnel. Generally, those employed for duty other than on the Great Lakes or Inland Waterways.
- **P** Precinct
- **Pres Pref** Presidential Preference
- **PT** Poll Tax
- **R** Residence
- **Rep** Republican

BEFORE YOU CAN REGISTER OR VOTE YOU MUST BE ELIGIBLE UNDER THE LAWS OF YOUR HOME STATE

SEE YOUR VOTING OFFICER OR COMMANDING OFFICER FOR ADDITIONAL INFORMATION

MANY THOUSANDS OF NAVYMEN and women will be able to exercise their voting privileges in this year's presidential election. Like most of the other members of the armed forces, a majority of the ballots cast by Navy voters will be of the absentee variety.

Many Navymen this year will be given the opportunity to cast an absentee ballot for the first time in their lives. This is due largely to new legislation passed by the 84th Congress, new laws and administrative practices put into effect by a number of states, and preparatory work by the Department of Defense.

A number of changes have been brought about and will be put into effect this year. These changes are:

- A permanent voting law (Public Law 296, 84th Congress, "The Federal Voting Assistance Act of 1955") effective in both peace and war, is now on the books.
- Regular Armed Forces personnel from Texas will be permitted to vote (however, to be eligible, personnel from Texas must have paid the state poll tax by 31 Jan 1956.)
- The Territory of Hawaii will permit servicemen to vote by absentee ballot. This brings a total of 47 states (all except New Mexico) and two territories (Alaska and Hawaii) which permit absentee voting.
- Minnesota will permit dependents who are overseas to vote by absentee ballot.
- Florida will accept the Federal Post Card Application for an absentee ballot from servicemen.
- The following 10 states have now been added to those that will accept the Federal Post Card Application from *dependents*: California, Connecticut, Florida, Iowa, Minnesota, Nevada, New Hampshire, Rhode Island, Vermont and Maine. (*If the Federal Post Card Application is not properly filled in with minimum abbreviations and the oath administered you may lose your opportunity to vote.*)
- All Federal absentee voting activities have been consolidated into a single agency—The Federal Voting Assistance Program—in the Department of Defense.

In order to help you in voting, ALL HANDS has published above the state-by-state (including territories) voting information chart. This chart, which is also available for inspection at all ships and stations, is entitled "1956 Voting Information" (NavPers 15849B). The chart has been distributed to all naval activities and applies primarily to members of the armed forces. In some instances, however, it also applies to dependents and other individuals.

The most important piece of advice to any Navyman wanting to vote, says the Navy's Federal Voting Assistance Officer, is to tell him to check with the officer in his command who has been appointed "Voting Officer."

Here are a few important facts about your eligibility and the laws concerning your voting privileges:

If you are a legal resident of the District of Columbia, you have no voting privileges. Also, if your legal residence is in New Mexico, you can vote only if you are there, since that state does not permit absentee balloting. Puerto Rico and the Virgin Islands also prohibit absentee voting.

Before you can register and vote, you must meet the eligibility requirements of your home state. Check the above chart and then check with your command Voting Officer.

** IS ABSENTEE VOTING PERMITTED IN:		1956 ELECTIONS		* APPLICATION FORM FOR REQUESTING BALLOT	* EARLIEST DATE APPLICATION WILL BE ACCEPTED AND OFFICIAL TO WHOM SENT	* EARLIEST DATE STATE WILL MAIL BALLOT TO VOTER	* MARKED BALLOT WILL BE ACCEPTED BY STATE VOTING OFFICIAL AS LATE AS—	STATE
PRIMARY ELECTION?	GENERAL ELECTION?	PRIMARY ELECTION	GENERAL ELECTION					
YES	YES	2 Aug—F, S, & Committeemen	6 Nov—F & S	FPCA	Any time prior to 10 Oct General E (U. S.). Any time prior to 1 Sept General E (Overseas) to E Comm. C of R	At least as early as 15 Oct for General E (U. S.). At least as early as 10 Sept for General E (overseas)	Day of E	TENNESSEE
YES	YES	28 Jul—F, S, & L 25 Aug—Runoff 1—Elected	6 Nov—F & S; CA	FPCA	Any time to C Clerk	As soon as available	1:00 P. M. day of E. Ballot must be voted between 20th and 10 day prior to E	TEXAS
YES	YES	11 Sep—F & S	6 Nov—F & S	FPCA	30 days before election to C Clerk	As soon as printed	Day of E	UTAH
YES	YES	11 Sep—F, S, & L	6 Nov—F, S, & L	FPCA	Any time to T Clerk	30 days before E	Day of E	VERMONT
YES	YES	10 Jul—F	6 Nov—F; CA	FPCA	At any time to Secretary of State, Richmond, Va.	90 days before E (Overseas) 60 days before E (U. S.)	Day of E	VIRGINIA
YES	YES	11 Sep—F, S, & L	6 Nov—F, S, & L; CA	FPCA	1 July to Sec of State, Olympia, Wash.	25 days before E	13 days after Primary E 15 days after General E SEE NOTE 3	WASHINGTON
YES	YES	8 May—F, S, L, Con Del & Committeemen Pres Primary	6 Nov—F, S, & L; CA	FPCA	Any time to Clerk of Circuit Court, C of R	70 days before E	Day of E	WEST VIRGINIA
YES	YES	3 Apr—S, L, & Con Del; CA; Pres Primary 11 Sep—F, S, & L	6 Nov—F, S, & L	FPCA	60 days before E to C City, T or Village Clerk (Board of E Commissioner in Milwaukee)	About 21 days before E	Day of E	WISCONSIN
YES	YES	21 Aug—F & S	6 Nov—F & S; CA	FPCA	Any time to C City or T Clerk	As soon as printed	Day of E	WYOMING
YES	YES	24 Apr—Territorial (Delegate to Congress)	9 Oct—Territorial; RQ (Delegate to Congress)	FPCA	90 days prior to E to any Commissioner, District of R	90 days before E	Ballot must be postmarked not later than day of E	ALASKA
YES	YES	NONE	6 Nov—Territorial & L	FPCA	60 days before E to E Commissioner of Guam	As soon as printed	Day of E	GUAM
YES	YES	6 Oct—Territorial & L (Delegate to Congress)	6 Nov—Territorial & L (Delegate to Congress)	FPCA	20 days before E to C Clerk	As soon as available	Day of E	HAWAII
NO	NO	NONE	6 Nov—Insular & L (Resident Commissioner to U. S.)	NO ABSENTEE VOTING IS PERMITTED IN PUERTO RICO BY ANYONE				PUERTO RICO
NO	NO	NONE	6 Nov—Territorial	NO ABSENTEE VOTING IS PERMITTED IN THE VIRGIN ISLANDS BY ANYONE				VIRGIN ISLANDS

RQ Referendum Question
RV Registered Voter
S State
SuR Supervisor of Registration
T Town
Ts Township

* Information applies PRIMARILY TO AFP; in some cases it may also apply to others.

** Information applies to ALL PERSONS.

NOTES

[1] If person votes with prescribed regularity

[2] In certain cities and/or counties

[3] Ballot must be voted and/or postmarked not later than day of E

[4] Marked ballot envelope must be postmarked not later than midnight of day before E

MAKE ALL NECESSARY APPLICATIONS AS EARLY AS YOUR STATE WILL PERMIT

APPLICATIONS FOR REGISTRATION OR ABSENTEE BALLOTS MUST BE MADE ON APPROVED FORMS

Age

All states except Georgia and Kentucky require that a person be 21 years of age in order to vote in a general election. In both Georgia and Kentucky, however, 18-year-olds can vote.

Two states, North Carolina and Indiana, allow a person to vote in the primary elections if he or she is 21 years of age by the date of the general election. A primary election is one in which members of specific political parties vote to choose their party's candidate.

Residency

Every state and territory require a minimum period of residency as a prerequisite to voting. These requirements vary from state to state. In some states, six months' residency is all that is needed. In others, one must be a state resident for one or two years.

South Dakota, for example, requires its voters to be a resident of the U. S. for five years, a state resident for one year, a county resident for 90 days and a resident of the precinct for 30 days.

Usually, the state, city, or county (or township or parish) in which you lived before entering the Navy is considered to be your legal residence for voting purposes—unless you have changed your legal residence while in the Navy.

Most states provide that time spent in the Navy may be included in the total residence requirement. For example, if the minimum residency requirement is two years and a person lived in that state one year and then in the Navy for one year, he will have fulfilled the minimum residence requirement of two years.

A few states, however, require that a person shall have met the residency requirement before entering the armed forces in order to qualify for voting by absentee ballot. If you have any doubt about the requirements of your state, you should contact your Voting Officer. And even if you think that you have all the facts down pat, consult your Voting Officer anyway; he might have a few tips for you that have been missed.

Registration and Application

Most states require a person to be registered before voting and most of them also permit absentee registration. A few states require registration to be completed before election day. The procedures vary from state to state and it is a good idea to check with your local Voting Officer.

In some states where registration is required, it's accomplished automatically when the absentee ballot and the attached registration affidavit have been properly executed and returned to the appropriate official.

A few states require re-registration periodically. All states other than New Mexico will accept the Federal Post Card Application for ballot (known as the FPCA or Form 76) from persons desiring to vote. These post card applications are available to all personnel on active duty and their dependents. You may obtain them from your Voting Officer.

Be sure to make all necessary applications as early as your state will permit as the time element is most important. Check with your local Voting Officer for the details concerning the policies and procedures.

If you are a qualified voter, it is your privilege—and duty as a citizen—to cast your vote in every election.

Check with your local Voting Officer as soon as possible. He will also have information concerning the absentee voting privileges of your wife.

LETTERS TO THE EDITOR

Broken Service Reenlistment

SIR: When I reenlisted in the Navy in January 1956, I was only allowed an AN rate although I had previously been an AM3. Why couldn't I have my old rate back under BuPers Inst. 1001.21, although I was out over 90 days? My rate was open at the time I returned to active duty and I know some Regulars who did return to active duty with their old rates—and they were not in the Reserves either. —A. F. S., AN, USN.

• *You'd better check with your buddies again, because BuPers Inst.* 1001.21 *pertains only to members of the Naval Reserve who desire active duty.*

Since you were not in the Reserve, and reenlisted under broken service conditions, E-3 was the highest pay grade open to you at the time of reenlistment.

Hence, your advancement to AM3 can be accomplished only through successful participation in the service-wide examinations.—ED.

Training for Lithographer

SIR: What are the qualifications a man has to have to attend a course of instruction at the Navy's Class "A" Printer's School?—D. C., SN, USN.

• *The rating of Printer (PI) is being converted to Lithographer (LI), and there is no Class A school for either of these ratings. The only course given is a conversion course which is conducted as on-the-job training at the DPPOs (District Printing and Publications Offices) at San Francisco, Calif., and Washington, D. C. Since the Lithographer (LI) rating is already over complemented, striking for this rating is not recommended.*—ED.

Korean MOP

SIR: According to BuPers Notice 7220, the deadline for filing a claim for the Korean MOP bonus is 16 Jul 1956. I was first discharged in July 1951. At that time, I received the MOP for World War II. I shipped for six and was told that I would receive my Korean MOP at the end of my enlistment. But I've heard a number of conflicting stories since the BuPers notice was published. What's the straight dope?—J. G. R., TE2, USN.

• *If you received mustering-out payment under the MOP Act of* 1944 *at the time of your discharge in July* 1951, *you will be entitled to otherwise proper MOP under the MOP Act of* 1952 *at the time of discharge from the enlistment you entered into in July* 1951.—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel Navy Dept., Washington, 25, D. C.

Ordnance Safety

SIR: Around the recruiting station here, we've heard a lot of talk about whether a gun turret can be trained around far enough for it to fire into the superstructure of the ship on which the turret is mounted.

Some of the old salts say that such an accident is impossible; however, while I was on duty in Cuba during 1951, the number one mount of a destroyer there on training duty fired into the DD's own number two mount and superstructure.

Can such an incident be verified?—H. C. L., CDC, USN.

• *Such incidents certainly can be verified—and they are always the result of carelessness on someone's part. Some six-inch turrets and a great many smaller mounts can actually be trained and elevated so as to point directly at the ship's superstructure. Others, including some eight-inch and larger turrets can be pointed into the ship's bow or stern structure. This is why proper setting and checking of firing cut-out devices is all-important.*

In the incident you cite, however, the number one mount did not actually fire into either number two or the superstructure—it fired into the barrel of mount two. That case is recorded on page 73 of the BuOrd publication "Ordnance Safety Precautions" (OP. 1014). Here's what the manual says:

"On 1 Oct 1951, one 5-inch 38-caliber gun aboard a destroyer fired into another. As a result, six men were killed and 15 wounded.

"In the investigation that followed, the commanding officer and the gunnery officer stated that they were unaware that such an accident was possible . . . so no warnings or precautions dealing with this hazard had been posted."

So the gun captain had not been warned—but he also failed to use his sight port to observe the line of fire to insure that it was safe. "The gun of mount two, the mount hit, was trained and elevated to a 'ready' position. In this position, the gun barrel could be in the line of fire of mount one. Mount two was not firing; it was not to fire until after mount one had completed its firing. For safety, therefore, mount two should have been held 'ready' at its normally secured position at zero degrees train. If it had been held 'ready,' no accident would have occurred.

"The cut-out cam is designed to prevent firing into fixed objects of the ship's structure. These include turrets, mounts, launchers, torpedo tubes, and cranes in their stowed position only. *Personnel must see that such items do not endanger the line of fire."*

"Ordnance Safety Precautions" also lists a number of other "line of fire" accidents caused by inattention to due safety precautions.—ED.

It's a Matter of Degrees

SIR: I have a question about pages 168-169 of the *Navy Training Course for QM3 and* 2, NavPers 10149-A (1954). On the subject of determining reciprocals for bearings larger than 180° the book says:

"To find the reciprocal of 350°, *add* 180° to get 530. Then subtract 360° from 530 and get 170°, the reciprocal of 350."

I'd like to know why you can't just subtract 180 from 350 in the first place, which gives you the same answer more directly. Is there some special reason for using the method prescribed?—C. E. M., QM2, USNR.

• *Yes, there is a reason. The writer of the course believed it was easier to remember just one rule for finding reciprocal bearings, so he said, always add 180 . Then if your total runs over 360°, you simply convert it by subtracting 360°. Otherwise you would have to remember to add 180° to an angle less than 180° and to subtract 180° from an angle between 180 and 360°.*

Naturally, your method is just as correct, and you're perfectly free to use it if you want to take on the extra memory work it involves.—ED.

KPUC for George H. MacKenzie

SIR: I would like to know whether whether USS *George K. MacKenzie* (DD 836) is entitled to the Korean Presidential Unit Citation for the period from August 1950 through February 1951.—R. J. G., SKI, USN.

• USS *George K. MacKenzie* (DD 836) is eligible for the Korean PUC for the following periods: 26 Jul 1950 to 30 Jan 1951, 16 Sep 1951 to 24 Apr 1952, 23 Dec 1952 to 4 Jul 1953.—ED.

Famous Ship, Famous Name

SIR: How about publishing a picture of USS *Yorktown* (CVA 10) as she looks after her seven-month face-lifting at the Puget Sound Naval Shipyard? We're mighty proud of our appearance with the addition of a new angled flight deck and a hurricane bow—the new look in jet age flattops.—W. E., JO2, USN.

• *You have a right to be proud of* Yorktown. *Her record in the jet age can be no more impressive, however, than has been the name* Yorktown.

Your ship is the fourth vessel to bear that name. The first was a 16-gun *sloop launched in* 1839 *and wrecked in a storm* 6 *Sep* 1850 *off the Isle of May during one of her missions. The second* Yorktown, *as Gunboat No.* 1, *was commissioned in* 1889 *and after various types of operations, served on convoy duty during World War I. She was placed out of commission in* 1919.

The third ship and the first carrier to bear the name was USS Yorktown (*CV* 5), *and she made it well remembered. She was launched on* 4 *Apr* 1936 *and was one of the first to strike back at the enemy after the attack on Pearl Harbor in* 1941. *Her planes were put into action late in January* 1942, *against the Gilbert and Marshall Islands, and during the battles of the Coral Sea and Midway. Still suffering from blows inflicted at Coral Sea, this gallant ship shot down* 25 *enemy bombers out of* 30 *sent against her at Midway. One bomb hit her boilers and three more direct hits on the ship caused her to list heavily. The crew was forced to abandon ship and a salvage party was placed aboard. All hope of saving* Yorktown *was dashed when a Japanese sub scored two torpedo hits amidships. She went down on* 7 *Jun* 1942.

Her successor, USS Yorktown (*CVA* 10), *was eager to get to the Pacific to avenge the heroic ship whose name she bears. At her launching ceremonies on* 21 *Jan* 1943, *she slid down the ways seven minutes ahead of schedule and nearly missed the bottle-breaking.*

Her first mission was a raid on Marcus Island, held by strong Japanese forces. In a pre-dawn attack, Yorktown's *aircraft smashed the island's installations inflicting heavy damage with bombing and strafing runs. She earned her first star on the Asiatic-Pacific Area Service Medal for her raid on Marcus and her next engagement at Wake Island.*

Ten more stars were earned by Yorktown *in the Pacific. Here are some of the operations for which she received a star: Gilbert Islands,* 19 *Nov to* 4 *Dec* 1943; *Marshall Islands,* 29 *Jan to* 8 *Feb* 1944; *Marianas,* 24 *Jun to* 27 *Jul* 1944; *Luzon,* 6 *to* 22 *Jan* 1945; *Iwo Jima,* 15 *Feb to* 1 *Mar* 1945; *and Okinawa Gunto,* 17 *Mar to* 11 *Jun* 1945.

USS YORKTOWN (CVA 10) heads to sea sporting new deck and bow for check out after conversion.

After the signing of the peace with Japan, Yorktown *engaged in carrying food, medical supplies and clothing to Allied prisoners-of-war in camps on the Japanese mainland. In her next operation she acted as transport for more than ten thousand servicemen, bringing them home in three voyages.*

Her total steaming since commissioning has exceeded a quarter of a million miles. Now she is underway again. On 15 *Oct* 1955, Yorktown *returned to the Fleet.*—ED.

Residence in a Foreign Country

SIR: Can a person, upon transfer to the Fleet Reserve, ask for permission to reside in a foreign country (Japan, for example) and then receive space available government transportation for himself, his dependents and household effects to that place?

If he is entitled to such transportation, what is the authority and to what command level should he make application?—H. J. W., YNC, USN.

• *The answer is yes, and here is the procedure to follow: upon transfer to the Fleet Reserve and release from active duty, you select the place you desire as your home under the provisions of Para.* 1150-3, *"Joint Travel Regulations." Permission to reside outside the U. S. or its possessions must be obtained from the Chief of Naval Personnel under the provisions of Article C-*1330 *of "BuPers Manual."*

If permission is granted, transportation for you and your dependents will be authorized at government expense. Government transportation will be provided for all or part of the travel outside the U. S., if available; otherwise commercial transportation will be used. Furthermore, if permission to reside outside the U. S. or its possessions is granted, your retainer pay checks will be mailed to you.

In regard to the shipment of household effects, "Joint Travel Regulations" provides that, upon transfer to the Fleet Reserve, shipment of household goods from the last or any previous duty station or place of storage to your home is authorized. The term "home" means the place which you select as your home for the purpose of receiving mileage or an allowance for transportation, as the case may be, for your travel. In your case "home" would mean Japan and your household goods would be shipped there for you.—ED.

Yorktown, One of Four, Started out as *Bonnie Dick*

SIR: I am currently serving in USS *Yorktown* (CVA 10), so I'm very much interested in her history. It has been brought to my attention that this ship was originally USS *Bon Homme Richard* (CVA 31), but I have been unable to find adequate information on this. I would appreciate any info you can dig up for me.

—M. K. J., PH3, USN.

• *Here's the information concerning your present "home"—the fourth* Yorktown—*and her name change: The hull numbered CV* 10 (*Now CVA* 10) *was laid down in December* 1941 *at Newport News and the name tentatively chosen for her was* Bon Homme Richard. *However, after the loss of CV* 5 *the name* Yorktown *was reassigned to CV* 10, *while* Bon Homme Richard *went back into the Navy's "stockpile" of ship names. Eventually it was assigned to CV hull number* 31 (*laid down at the New York Naval Shipyard* 1 *Feb* 1943). *Note that the change in name did not affect the numbers assigned to the hulls, so your statement that the ship was "originally* USS Bon Homme Richard (*CVA* 31)*" is incorrect; she was originally* USS Bon Homme Richard (*CVA* 10), *although never actually commissioned with that name.*

We don't know the specific reason behind this particular change of name, but we do know that during World War II the Navy Department was frequently urged to name a ship this or that or the other—usually in connection with War Bond drives, Navy Day celebrations or similar occasions. At any rate, CV 10 *had her name changed on* 26 *Sep* 1942 *by order of the Secretary of the Navy.*—ED.

USS SAN BERNARDINO COUNTY (LST 1110) battles heavy ice as she waits for help from an icebreaker at Point Barrow while on DEW Line supply mission.

Ice-Bound

SIR: The January issue of ALL HANDS shows a picture on page 57 of USCGC *Bittersweet* (WAGL 389) on her way to assist an LST during Operation DEW-Line. Your caption erroneously identifies the LST as USS *San Bernardino County* (LST 1110); actually it is USNS *T-LST* 1072.

San Bernardino County did take part in the operation and we were beset in heavy ice in much the same manner as *T-LST* 1072. During a 45-hour period we were firmly stuck in the ice at Point Barrow until aided by *Bittersweet* on 12 Sep 1955. For those who have never had the experience of being icebound, we might say that it's an uncomfortable situation.—O. E. R., LTJG, USNR.

• *Thanks for setting us straight. Thanks, too, for the picture of "San Berdoo" in a similar position.*—ED.

Gold Service Stripes

SIR: If one day is lost due to a break between enlistments during the first 12 years of service, is a man disqualified from wearing gold lace service stripes? There is some question at this command as to whether the 12 years' continuous service must be day-for-day, or if a break between enlistments of less than 90 days would not disqualify a man, requiring him to serve 12 continuous years after the break in service.—J. J. A., YNC, USN.

• *No, you are not disqualified. If you reenlist within three months of your discharge date, you are considered "under continuous service," according to Article C-1403(4) of "BuPers Manual." Therefore, if you are in all other respects eligible for gold service stripes, you may wear them if you have less than 90 days' break in service between enlistments.*—ED.

Senior Medical Student Program

SIR: In September I expect to return to school to complete my medical training and I've been told that it is possible to get aid on the expense in return for active duty with the Navy's Medical Corps after I've completed school. If such a program exists, can you give me the details?—B. R. G., Ex-HM2, USNR.

• *The program you've heard about is probably the one known as the "Ensign, 1995 Senior Medical Student Program," which is open to qualified students enrolled in medical schools accredited by the Council on Medical Education and Hospitals of the American Medical Association.*

Applications for the program are accepted at all Offices of Naval Officer Procurement from third year medical students for enrollment on active duty while in attendance during their ensuing academic year. To be eligible for participation, the applicant must be an Ensign, 1995 (Medical) U. S. Naval Reserve or agree to accept such an appointment if selected. A board convened in the Bureau of Medicine and Surgery selects the candidates for participation in this program.

While in attendance and on active duty, the student ensign receives the full pay and allowances of his rank. No money is paid directly for registration fees, tuition, cost of books, etc.

Individuals entering into this program are required to accept a Regular Navy commission upon completion of medical school and internship and serve on active duty, at the discretion of the Secretary of the Navy, for a minimum period of three years, excluding the period served as a senior medical student and in an internship. Thus, the medical student who has 24 months' obligated military service to perform will be afforded an excellent opportunity to discharge this obligation and serve an additional year in return for participation in the program.—ED.

Nests of Ships

In the May 1955 issue of ALL HANDS, *the picture on the inside front cover showed* USS *Cascade (AD 16) with seven ships moored alongside. We thought it to be a rather unusual photo and so the published picture carried the simple question, "Can You Top This?" We forgot about the question until the letters started rolling in.*

It seems that many could "Top This," and proceeded to say so. In the November 1955 issue, we published letters and photos which showed USS *Laertes (AR 20) with 10 ships alongside and* USS *Nereus (AS 17) brooding nine submarines and a sub rescue vessel.*

And that wasn't the end. Further emphatic letters required ALL HANDS *to acknowledge, in the January 1956 issue, various other claims in which* USS *Kanawha (AO 1) really did top all (for a time) with 13 DDs alongside. However, this was back in 1921, so we cited* USS *Proteus (AS 19) for what we thought would be the modern record of 12 subs alongside.*

The writers of those letters quoted below obviously hadn't seen the January issue when they took pen in hand. This is what some of them have to say:

SIR: Although you already have published two pictures, namely, USS *Laertes* (AR 20) and *Nereus* (AS 17) with "alongsiders" for a tied record, I consider this view of the CruDesPac destroyer tender USS *Piedmont* (AD 17), recently taken at Sasebo, Japan, as tops of them all, at least tonnage-wise. Here is a brood of 10 (eight destroyers and two escort vessels).

From left to right the ships are USS *Leonard F. Mason* (DD 852), *Henderson* (DD 785), *George K. MacKenzie* (DD 836), *Henry W. Tucker* (DDR 875), *Rupertus* (DD 851), *Piedmont* (AD 17), *Rowan* (DD 782), *Gurke* (DD 783), *LeRay Wilson* (DE 414) *Douglas A. Munro* (DE 422) and

High School GED Test

SIR: What "grade completed" should a man indicate on shipping articles and other official papers if he has passed the High School GED test but does not have a high school diploma? Should he indicate 12 years completed on the basis of the GED test or should he give the actual number of years completed? Also, how many years completed would be indicated by an individual who has passed the college 2CX test? —R.V.H., YNCA, USN.

• *The applicants should indicate 12 years completed in the "grade completed" section of their shipping articles if they have completed the High School GED test, and 14 years if they have completed the 2CX test.*—ED.

NEW CHAMP — *USS Howard W. Gilmore* (AS 16) holds record with 18.

Southerland (DDR 743).—E. E. J., JOC, USN.

• *Interestingly enough*, Piedmont *was also a claimant in the January issue, in which eight vessels were shown alongside. We repeat what we said then: "Thanks. A good try but other ships have topped you.*—ED.

SIR: We of USS *Sperry* (AS 12) submit this picture showing 11 submarines alongside. From the port outboard sub they are: USS *Blenny* (SS 324, *Redfish* (SS 395) *Bluegill* (SSK 242), *Cusk* (SS 348), *Blackfin* (SS 322), *Pomodon* (SS 486), *Sterlet* (SS 392), *Stickle Back* (SS 415), *Aspro* (SS 309), *Spinax* (SSR 489). Please note that's 10 on the port side. The submarine mooring on the starboard side, visible near the stern, is USS *Pomfret* (SS 391). We claim this to be the record.—D. L. R., MEC, USN.

• *We might have thought so too, if your photo had arrived sooner. But read on.*—ED.

SIR: I forward you this picture of the old USS *Melville* (AD 2) in Balboa, Canal Zone in 1939 with 13 destroyers alongside, which exceed by three the so-called "record."—W. H., BMC, USN.

We'll think twice before we ask any more questions. But read on.—ED.

SIR: According to the January issue it seems that the modern Navy is in danger of not only losing the cigar to the old timers, but not even getting a part of it. I believe USS *Fulton* (AS 11) rates a position in the ships alongside argument.

The attached photo may help bolster the modern Navy's position. It shows *Fulton* moored fore and aft in Tanapag Harbor, Saipan, on 10 Nov 1944, with 13 subs alongside. From inside, starboard side they are: USS *Sea Cat* (SS 399), *Scabbardfish* (SS 397), *Pipefish* (SS 388), *Burrfish* (SS 312), *Besugo* (SS 321), *Saury* (SS 189), *Salmon* (SS 182). Portside, they are: USS *Ronquil* (SS 396), *Tambor* (SS 198), *Perch* (SS 176), *Pampanito* (SS 383), *Archer Fish* (SS 311), *Searaven* (SS 196). A supply barge is alongside the starboard bow partially obscuring *Sea Cat*.

I might add that *Salmon's* stop was temporary as she was returning to the States, having absorbed one of the worst depth charge beatings of the war.—K. W. C., CDR, USN.

• *Tsk-tsk. And we were brash enough to ask if* SEVEN *could be topped! But there's more to come.*—ED.

SIR: It was stated in the November issue of ALL HANDS that 10 subs alongside USS *Nereus* (AS 17) was believed to be a record. I cannot say exactly how many subs were tied up alongside USS *Fulton* (AS 11) at Tanapag Harbor in Saipan in 1944, but I know there were at least 15 or more—not just on one side, but at times on both sides.

This was during the Philippine invasion when the subs were making repairs and then going out on another run. Maybe some old members of the 81st or 82nd Relief Crews could supply the info on how many actually were alongside.—J. S. M., TMC (SS), USN.

• *Do you mean you had 15 subs on each side at one time? That would be a record—if you could locate a photo to prove it.*—ED.

SIR: The enclosure should put a stop to the question concerning the tender with the largest number of ships alongside. The tender was USS *Howard W. Gilmore* (AS 16); the place, Subic Bay, P. I.; the time, about 24 Aug 1945; the occasion, return to the United States.

This picture was taken by a crew member of USS *Hardhead* (SS 365), while departing from the next pictured. You will note one sub backing down. She would increase the number to 16. The sub from which the picture was taken makes it 17, and USS *Hawkbill* (SS 366) (not shown) would have brought the total to 18.

Until a picture which shows all 18 can be surfaced we will have to be content with a record of 15, actually alongside, which hangs up another record for the Submarine Force — and we have plenty of them.—J. L. M., LCDR, USN.

SIR: I thought you would be interested in the enclosed picture of USS *Howard W. Gilmore* (AS 16) with 18 submarines alongside. The picture was taken in August 1945 at Subic Bay during a ceremony marking the departure of *Gilmore* and the submarines for the U. S.—G. A. N., LTJG (MSC), USN.

SIR: In late August 1945 ComSub7th Flt had all submarines of the Seventh Fleet with a few exceptions, moored to the tenders USS *Howard W. Gilmore* (AS 16) and *Anthedon* (AS 24). I remember, we counted 18 submarines moored to *Gilmore*, nine on each side.

I remember this event very well, because the gathering of this number of boats was the result of the end of World War II, and I still class it as a very happy sight.—P. V. L., CAPT., USN.

• *Let's just pretend we never started the whole thing, huh?*—ED.

TOPS FOR TIN CANS — Picture of old *USS Melville* (AD 2) taken at Balboa in 1939 shows nest of 13 destroyers.

USS Fulton (AS 11) bids for bite of cigar with photo showing 13 along side while at Saipan, in 1944.

GOOD TRY — *USS Sperry* (AS 12) shows her brood of 11 with 10 on port side and one moored to starboard.

ONE OF MANY pictures received from crew members of *USS Piedmont* (AD 17) who claimed tonnage record.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• USS *Charrette* (DD 581)—A reunion will be held in Chicago, Ill., on 1, 2, and 3 September. For information concerning reservations and program, write to Ralph Morelli, 141 Belmount Avenue, North Arlington, N. J.

• USS *Indiana* (BB 58)—A reunion is scheduled for 17, 18, and 19 July in Aurora, Illinois. Contact D. A. McCoy, Durant, Okla., for further details.

• USS *Knapp* (DD 653)—A reunion of crew members who served from commissioning to end of World War II will be held in Chicago, Ill., on 6 and 7 July. For information, write to O. J. King, Jr., 3216 - 57th St., Des Moines, Iowa.

• USS *Ludlow* (DD 438)—The sixth annual reunion will be held at the Vanderbilt Hotel, New York City, on 3, 4 and 5 August. Contact Cal Custy, 31 Sunbright Drive South, Meriden, Conn.

• USS *San Juan* (CLAA 54)—A reunion is tentatively scheduled for 13 October, in New York City. For further information, write to LT Joseph H. Roening, 55 Arnold Avenue, Closter, N. J.

• USS *Trego* (AKA 78)—A reunion will be held in Washington, D. C. on 28 and 39 July. For more details, write to M. A. Garner, Route 4, Box 87-G, Greenwood, S. C.

• USS *Idaho* (BB 42)—Former crew members, including ComBatDiv 2 and ComBatDiv 3 Flag Allowance, who served during World War II, and who are interested in holding a reunion in Norfolk, Va., this summer, should contact David C. Graham, QMC, USN, Staff, Instructors School, Naval Station, Norfolk, Va.

• USS *Tide* (AM 125)—Former crew members who are interested in holding a reunion, with time and place to be decided by mutual consent, should contact Harold J. Profitt, HMC, USNR, 803 Blackstone Building, Harrisburg, Pa.

Where Service Records Are Filed

SIR: When an enlisted man ships over and his old service record is forwarded to the Bureau of Naval Personnel for filing, what happens to his previous records? Suppose, for instance, that he has shipped over three times. Would the Bureau have three service records for this man?

I have heard that all service records are retained right there in the Bureau. Other persons have claimed that the records are sent for safe keeping to the Record Management Center, or claim that they are retained by the Bureau but not in storage at Arlington Annex. I just assumed that they were retained all together in Washington.—M. M. L., YNC, USN.

• *You're right. The Bureau of Naval Personnel, located in Arlington Annex, Washington, D. C., maintains a single file of the duplicate current service record, and the original prior service records of enlisted personnel whose current status is USN, USNR, Naval Fleet Reserve or Retired.*

The service records of former enlisted personnel are maintained at the Naval Record Management Center, Discharged Enlisted Personnel Records Branch, 9700 Page Blvd., St. Louis 14, Mo. USNR personnel records are sent to the Center immediately after the individual's discharge or death, and USN records are sent to the Center six months after discharge or death.

The service record of an individual who reenlists after his record has been retired to the Center is withdrawn and combined with his current duplicate record in the Bureau of Naval Personnel.—ED.

Qualifying for Recruiting Duty

SIR: BuPers Inst. 1336.1A states that personnel applying for recruiting duty must be presently serving at sea, and I am currently on Fleet Shore Duty. Even so, I believe I have a good chance of getting the shore duty billet I particularly desire, since my tour of obligated service is nearing completion and I would agree to extend for such duty—if there are no names on the waiting list for this duty.

The billet I want is at the Main Recruiting Station, Louisville, Ky., which will have openings for a yeoman and a personnel man during the next five months. Can you give me additional information on this matter, and tell me how many names, if any, are on the waiting list for duty at the Louisville station?—J. R. McG., PN2, USN.

• *First of all, men serving on a tour of Fleet Shore Duty are* NOT *eligible for transfer to recruiting duty, so in order to be eligible you must requalify in the point of sea service.*

Then, even if the waiting list contained no names of men who desire duty at Louisville, there are always some who request the Naval District in which Louisville is located, and many others who request duty "anywhere in the U. S." Therefore, it's not possible to give you an estimate.—ED.

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New Phonetic Alphabet—

From Fox to Foxtrot, Tare to Tango

LIKE THE WORDS of any language, those of the phonetic alphabet have been changed a number of times to try and improve man's efforts to communicate with man. The ALFA, BRAVO, CHARLIE alphabet which the Navy put into effect on 1 Mar 1956 is the biggest step yet in the search for a set of words that would be universally understandable to people of all nationalities.

This alphabet, developed by the International Civil Aviation Organization (which includes about 60 member-nations) was approved by the Joint Communications - Electronics Committee (Joint Chiefs of Staff) on 22 Aug 1955. It is the result of years of intensive study by international experts in phonetics, languages, speech training, education and applied psychology. As part of that study, people of more than 30 nationalities repeatedly tested long lists of words in a search for those which would work best in international use.

This isn't the first time that servicemen have re-learned their phonetic ABCs. A look at *The Blue Jackets' Manual* of 1922 shows words like AFFIRMATIVE, CAST, HYPO, OPTIONAL, PREPARATORY and QUACK. By 1939 AFFIRMATIVE, OPTIONAL and PREPARATORY had been shortened to AFIRM, OPTION and PREP, while QUACK had been replaced by the more dignified, QUEEN. There were even more changes in the BJM of the following year. AFIRM became ABLE, CAST became CHARLIE, HYPO became HOW, OPTION became OBOE and PREP became PETER. Meanwhile, the Army was using a different alphabet which it had adopted in 1914, and other nations were using words of their own.

The first attempt at world-wide agreement on a spelling alphabet was made in 1927 at the International Telecommunication Union Radio Conference in Washington, D. C. For international use in maritime and aeronautical communication, the ITU set up a system based on geographical names. This one started out with AMSTERDAM, BALTIMORE and CANADA and wound up with XANTHIPPE, YOKOHAMA and ZOULOULAND. In 1932 the ITU made 14 changes in this alphabet, but XANTHIPPE went rolling merrily along.

Although the ITU set-up was used internationally, most countries had other alphabets for their own use prior to World War II. The British RAF, for example, had one which began, ACK (or APPLE), BER, CHARLIE. This version and the U. S. Army system of 1914 were combined and modified to create the old ABLE, BAKER, CHARLIE set-up, which America and her allies adopted in 1943 as their official phonetic alphabet. However, a different set of words was agreed upon for the official names of the alphabetical signal flags used by the Allied navies.

In 1947, the members of ICAO made two alphabets official — the Allied version of 1943 and another system specifically designed for Spanish-speaking people. At the same time the search was begun for an alphabet which would be almost universally acceptable. The words the experts sought had to start with the letter which they were to identify (EXTRA had been used for X in some systems); they had to be short (preferably two syllables); they had to look sound practically the same in French, English or Spanish; and they had to have good "recognizability factors" so that they could be heard and understood easily.

It wasn't easy to find the right words but these words, now that we have them, should make it easier for people of the world to understand each other. If they do, they're worth the trouble it took to find them.

How To Learn Your ALFA BRAVO CHARLIEs

Throughout the Fleet the new phonetic alphabet is being talked over. It has become the subject of cartoons, of poems (to assist in learning the new words) and of articles in civilian newspapers and magazines.

Some people have even analyzed the types of words used in the list. Not a technical or linguistic analysis, to be sure—merely a listing. For example, how many names of people are on the list? (Here they are; you count them. CHARLIE, JULIETT, MIKE, OSCAR, ROMEO, VICTOR. And maybe we could add DELTA and INDIA, for these have been used as names.)

How many places? (INDIA, LIMA, QUEBEC, SIERRA—and maybe even WHISKEY. Isn't there a town called Whiskey Flat some place out west?)

There are reports that some people are learning the new alphabet by translating familiar abbreviations such as RFS (ROMEO FOXTROT SIERRA, or Ready For Sea); ETA (My ECHO TANGO ALFA is 0845); ORI; USS; SOA; and so on. It has been suggested that another way to assist you to learn the new alphabet is to spell out your own name and the name of your ship. For instance, *Ashtabula* would be ALFA SIERRA HOTEL TANGO ALFA BRAVO UNIFORM LIMA ALFA. And if your name is Patrick Xavier Doyle, you'd spell it out as: PAPA ALFA TANGO ROMEO INDIA CHARLIE KILO XRAY ALFA VICTOR INDIA ECHO ROMEO DELTA OSCAR YANKEE LIMA ECHO. On second thought, maybe you should use initials.

In case someone tries to tell you there isn't any such word as ALFA, just refer him to a big dictionary. There he'll find it listed as a grass that grows in North Africa.

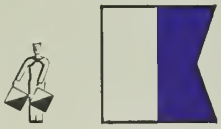
When your learning progresses far enough in your ABCs (ALFA BRAVO CHARLIE), see if you can remember which words were not changed. And when someone tells you he knows the full alphabet, ask him if he can pronounce them correctly. For example, KILO, LIMA, QUEBEC. And how about BRAVO? Is it "brayvo," or "brahvo" and does it and the others get confusing with a different pronunciation? (For correct pronunciation see the centerspread chart.)

A real old-timer, especially if he was around the bridge as a quartermaster, signalman or radioman, may pride himself on his memory. If he's really good, he'll not only know the new one, and the old one, but he still should be able to write out the old, old list that began AFIRM, BAKER, CAST.

Learning the new alphabet won't be too ECHO ALFA SIERRA YANKEE, but after you use it a while it will be as familiar to you as YANKEE OSCAR UNIFORM ROMEO NOVEMBER ALFA MIKE ECHO.

INTERNATIONAL ALPHABET FLAGS, PHONETIC

A ALFA (spoken) "ĂL FĂH"



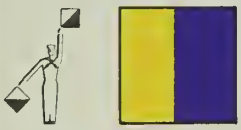
B BRAVO (spoken) "BRĂH VŌH"

C CHARLIE (spoken) "CHĂR LĒE"

D DELTA (spoken) "DĚLL TĂH"

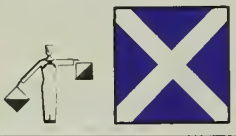
E ECHO (spoken) "ĚCK

K KILO (spoken) "KĒY LŌH"

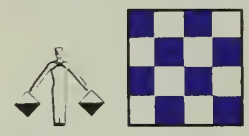


L LIMA (spoken) "LEE MĂH"

M MIKE (spoken) "MĪKE"



N NOVEMBER (spoken) NŌ VĚM BĚR"



O OSCAR (spoken) "ŎSS C

Attention

This sign is made by waving both flags from the "U" position to the overhead position. It is used as a preliminary call and to establish communications.

Front

This sign is used after you have finished a word. It is also used before and after each call sign, code group or procedure sign and between all letters and numerals of a call sign.

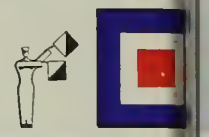
Error

This sign consists of the letter "E" made several times. After an error is made, the sender then repeats the last group correctly sent.

U UNIFORM (spoken) "YOU NEE FŌRM"

V VICTOR (spoken) "VĬK TAH"

W WHISKEY (spo "WĬSS



NAVAL NUMERAL FLAGS, PHO

1 ONE "WUN" (spoken)

2 TWO "TOO" (spoken)

3 THREE "THUH-REE" (spoken)

4 FOUR "FO-WER" (spoken)

5 FIVE "FI-YIV" (spoken)

INTERNATIONAL

1 "Pennant One" p1 (spoken) (written)

2 "Pennant Two" p2 (spoken) (written)

3 "Pennant Three" p3 (spoken) (written)

4 "Pennant Four" p4 (spoken) (written)

5 "Pennant Five" (spoken) (w

NAVAL SPECIAL

International Answer (written) ANS (spoken) "Answer"

Code (written) CODE (spoken) "Code"

Black Pennant (written) BLACK (spoken) "Black pennant"

Corpen (writ CORP (spo "Corp

Interrogative (written) INT (spoken) "Interrogative"

Negative (written) NEGAT (spoken) "Negat"

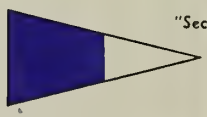
Preparative (written) PREP (spoken) "Prep"

Port (written) PORT (spoken) "Port"

Speed (writ SPE (spo "Spe

First Substitute (written) 1st (spoken) "First Sub"

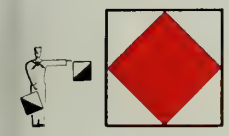
Second Substitute (writ (spo "Second



Prepared by ALL HANDS Magazine

BET, MORSE CODE AND SEMAPHORE ALPHABET

F FOXTROT (spoken) "FŎKS TRŎT"



G GOLF (spoken) "GŎLF"

H HOTEL (spoken) "HŌH TĚLL"

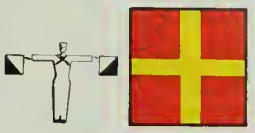
I INDIA (spoken) "IN DEE AH"

J JULIETT (spoken) "JEW LEE ĚTT"

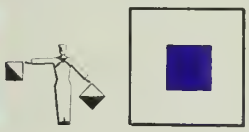
P PAPA (spoken) "PAH PĂH"

Q QUEBEC (spoken) "KĚH BĚCK"

R ROMEO (spoken) "RŌW MĒ ŌH"

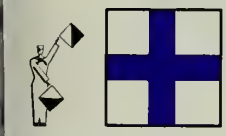


S SIERRA (spoken) "SEE ÂIRRAH"

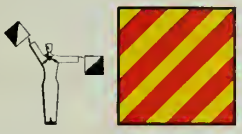


T TANGO (spoken) "TĂNG GŌ"

X XRAY (spoken) "ĚCKS RĀY"



Y YANKEE (spoken) "YĂNG KĚY"



Z ZULU (spoken) "ZŌŌ LŌŌ"

Numerals
This sign is given before you start to send a group of numbers and when the group of numbers is completed. Numerals are always spelled out in semaphore.

Answer
This sign is made the same as the letter "C." It is used to indicate an acknowledgment, a fraction or decimal in the signal, and to indicate signal taken from International Code of Signals.

Direction Sign
This sign is the same as the letter "J." It is used to show receiver which direction the sender is facing.

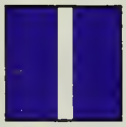
NUMERALS AND MORSE CODE

6 SIX "SIX" (spoken)

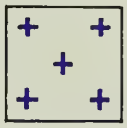
7 SEVEN "SEVEN" (spoken)

8 EIGHT "ATE" (spoken)

9 NINE "NINER" (spoken)

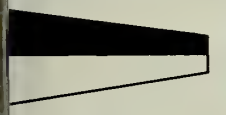


Ø ZERO "ZERO" (spoken)



ERAL PENNANTS

6 "Pennant Six" p6 (spoken) (written)



7 "Pennant Seven" p7 (spoken) (written)

8 "Pennant Eight" p8 (spoken) (written)

9 "Pennant Nine" p9 (spoken) (written)

Ø "Pennant Zero" pØ (spoken) (written)

AND PENNANTS

signation (written) DESIG (spoken) "Desig"

Division (written) DIV (spoken) "Div"

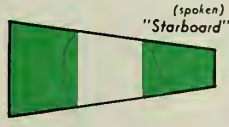
Emergency (written) EMERG (spoken) "Emergency"

Flotilla (written) FLOT (spoken) "Flot"

Formation (written) FORM (spoken) "Formation"

uadron (written) SQUAD (spoken) "Squad"

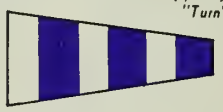
Starboard (written) STBD (spoken) "Starboard"



Station (written) STATION (spoken) "Station"

Subdivision (written) SUBDIV (spoken) "Subdiv"

Turn (written) TURN (spoken) "Turn"



rd Substitute (written) 3rd (spoken) "Third Sub"

Fourth Substitute (written) 4th (spoken) "Fourth Sub"

Bureau of Naval Personnel

FLAGHOIST signaling is a salty way of passing the word visually at sea when Navy ships are within easy signaling distance in the daytime. It is considered to be the quickest and most accurate of the methods depending on the Navyman's eyes for interpretation. Besides sending messages this colorful alphabet is used for special ceremonial occasions. *Upper Right:* A seaman on board USS *Rankin* (AKA 103) bends on a flag from the flag bag just prior to hoisting message to other ships in Norfolk harbor. *Upper left:* Battleship USS *Wisconsin* (BB 64) flies her flags and crew mans the rail as a special occasion calls for dress ship. *Lower Left:* Message is flown from ship's flaghoist. *Lower Right:* You won't be able to read a message here. Bunting receives a needed airing in sun after a spell of rainy weather at sea.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

Floating Garage

USS *Amphion* (AR-13) is beginning her second decade as a "floating garage."

In the 10 years since she was commissioned and placed on active duty with ComServLant, *Amphion's* nearly 800 officers and men have serviced every type of ship known to the Fleet, repairing everything from hulls to delicate chronometers. They can also do a pretty fair job in demolishing a birthday cake, as they proved during a shipboard anniversary celebration at Norfolk, Va., the vessel's home port.

As the crew sat down to a turkey dinner, Guy W. Davis, ICC, USN, *Amphion's* only plank owner, and Larry E. Satterfield, SN, USN, the newest member of her crew, were honored guests at the captain's table where they joined the skipper, CAPT A. D. Lucas, USN, in the cake-cutting.

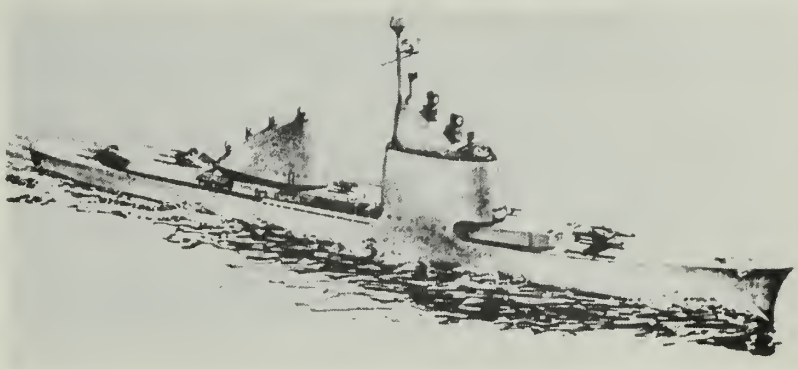
In an informal talk CAPT Lucas called for a continuation of the teamwork which has brought the 16,000-ton Fleet repair ship a large collection of efficiency awards and athletic trophies. After that, souvenirs were distributed and the captain "ordered" the crew to take the rest of the day off.

Faster Provisioning at Sea

The dramatic and oft-times hazardous job of replenishing the Navy's fighting ships with beef, beans, and bananas while underway at sea will soon be speeded-up and streamlined by an endless-belt vertical conveyor developed by the Bureau of Supplies and Accounts.

The "vertical pocket-lift conveyor" is simply an endless belt that runs from the main deck of a refrigerated stores ship straight down to her lowest hold-level.

The belt is fitted with canvas "pockets" which may be filled with provisions from any level of the ship's holds. Once in their pockets, the boxes of frozen, chilled and dry provisions are given a fast elevator ride to the main deck, where they are automatically ejected for loading into waiting cargo nets.



CRUISER OF TOMORROW — Artist's conception shows proposed atomic-powered, guided missile cruiser *Salu*. She will have multiple missile launchers.

The nets are then picked up by a highline and swung out over the sea for transfer to the ship steaming alongside.

The conveyor works three times faster than present methods of lifting provisions out of the holds with cargo nets. Consequently, it shortens the time a destroyer, cruiser, or aircraft carrier is alongside a stores ship in a position vulnerable to enemy attack.

The vertical conveyors are being installed on underway replenishment refrigerator ships as rapidly as they can be procured.

Complementing the conveyor method of speeding up the off-loading of provisions from ship to ship are lightweight gravity conveyors with improved telescopic metal chutes and vertical canvas drop chutes for vertical movements. Gear of this type hastens the movement of stores within the cargo ship's holds and also aboard the receiving ship, where stores must be struck below as rapidly as possible after they are delivered.

Passing the Word

Even the squawk box is super on today's giant flattops.

Here's why. USS *Forrestal* (CVA 59) has a flight deck that measures about 200 by 1000 feet. This presented quite a problem for the men who had to make her PA system heard over the entire deck, despite roaring, screeching planes. Loudness alone wasn't the answer, for a squawk box with too much volume can be as hard to understand as one with too little.

To overcome this difficulty, *Forrestal* was given a set-up which had never been used on a carrier before. High-powered loudspeakers, placed all around the edge of her flight deck, create what the technicians call "a uniform sound level of approximately 110 decibels." The big carriers USS *Saratoga* (CVA 60), *Ranger* (CVA 61), *Independence* (CVA 62) and *Kitty Hawk* (CVA 63), will get similar PA systems.

The only question now is, what happens to the guy who says he didn't get the word?

YESTERDAY'S NAVY

On 3 Jun 1865 the Confederate naval forces on Louisiana's Red River surrendered. On 5 Jun 1945, U. S. Naval vessels were damaged by a severe typhoon off Okinawa. On 10-11 Jun 1871, 650 sailors and Marines captured a series of forts along the Salee River, Korea, after the forts had fired on ships and boats from a squadron of the Asiatic Fleet sent to negotiate for the protection of shipwrecked American seamen. On 18 Jun 1812 war was declared between Great Britain and the United States over the question of impressment and interference with American shipping.

NEWPORT DESTROYER PIER One has seen a lot of use since it opened for business in November. View shows 24 destroyer type ships moored to pier.

News of Navy Ships

U. S. Navy ships have formed the nucleus for a number of foreign navies, so it's no surprise to find the Navy laying claim to another offspring this month—the new West German Navy. First ships of the new allied force, which is expected to have about 8000 sailors by year's end, will be two squadrons of 18 U. S. Navy minesweepers and minesearchers.

Aboard the smaller ships in our own Navy there's been plenty of talk about guided missiles and larger ships, and speculation on what was in store for DDs and DEs along the same line. A partial answer to that one is a junior version of the *Terrier,* with approximately the same range. Still in the design stage the compact antiaircraft missile is intended for use by destroyers, according to RADM John H. Sides, commander of the Navy's only guided missile cruiser division.

Back in the here and now, Navymen will be interested in news of two other craft, although they're pretty hard to classify as to type:

• USS ***Hartford,*** the steam frigate on which Admiral David Farragut uttered his deathless "Damn the Torpedoes! Full speed ahead!" seems to have reached the end of her career. The Navy has asked Congress for authority to dispose of the historic ship by sale or scrapping. The bill also authorizes sale of any "parts or pieces suitable for use as souvenirs." *Hartford,* now berthed at the Norfolk Naval Yard, was decommissioned at Charleston, S. C., on 20 Aug 1926. In July 1953, Congress passed a law which permitted transfer of the doughty craft to Mobile, Ala., but no civic group came forward to claim her.

• USS ***Recruit,*** an "active duty dry land ship" according to the NTC San Diego newspaper, has received an overhaul which included the laying of steel decks and sheathing her starboard side in sheet metal. It seems that the starboard side of *Recruit's* plywood hull couldn't stand the alternate heat of California's sun and the cold, salty night air blowing off a nearby channel. The metal sheathing is expected to make her warped hull "seaworthy" indefinitely. The decks of the mock escort vessel were plated to protect them from further wear occasioned by some 50,000 recruits who each year learn seamanship techniques aboard her.

Far across the sea in Yokosuka, Japan, USS ***Bennington*** (CVA 20) found herself with something of a problem when she tried to get into Drydock Five at Yokosuka's Ship Repair Facility. She was just too big to make it in the normal bow-first position—so she was eased in sternfirst. That was the only way the huge cranes along the dock could be utilized.

Also in the carrier Navy:

• USS ***Saratoga*** (CVA 60) didn't even wait for her commissioning before having guests aboard. "Open House" has already been held for families of men stationed at New York Naval Shipyard, where *Sara* is being fitted out.

• Meanwhile, an early May date saw the entry of USS ***Forrestal*** (CVA 59 into Norfolk Naval Shipyard for an extended post-shakedown overhaul which will include installation of improved propeller shafts.

• Also at Norfolk, planning has been underway for some time for the angled deck conversion of the 33,000-ton USS ***Ticonderoga*** (CVA 14). She is at present slated to enter the shipyard in July for the job.

• USS ***Hornet*** (CVA 12) is now at Puget Sound Naval Shipyard for a modernization program. This includes the angled deck, enclosed bow, aluminum deck-edge elevators, new arresting gear and foremast and revamped living quarters. USS ***Kearsarge*** (CVA 33) has also reported to PSNS for a similar job, while USS ***Hancock*** (CVA 19) is expecting the same treatment from San Francisco Naval Shipyard.

The Atlantic Fleet has welcomed back USS ***Iowa*** (BB 61) following several months of overhaul at Portsmouth, Va. During her availability in the yard, the huge battleship had her big guns replaced and her airplane crane removed. The antenna mast was rebuilt to accommodate a 300-foot span wire rig (crane and boom). This rig is a combination fuel and boat-handling rig and permits the carrying of larger size motor boats.

Two cruisers of the *Baltimore* class have made headlines, with one being inactivated and another being given an overhaul extensive enough to include installation of guided missile capabilities. The first is USS ***Baltimore*** (CA 68), which has been assigned to the Bremerton Group of the Pacific Reserve Fleet. USS ***Macon*** (CA 132) has completed an overhaul and modification at Norfolk Naval Shipyard which included launchers for an unidentified type of missile. Here it might be noted that yet another *Baltimore*-class vessel, USS ***Los Angeles*** (CA 135), was earlier modified to launch *Regulus* missiles.

Glancing at random around the Fleet we find several other events taking place:

• USS ***Yukon*** (AO 152), the largest ship ever built on the Gulf Coast and a super oiler in anybody's language, has gone down the ways at Pascagoula, Miss. She's a 614-footer with a maximum displacement of 32,950 tons.

• USS ***John Willis*** (DE 1027) has been launched in New Jersey. Named for a first class pharmacist's mate who won a Medal of Honor on

SUPER CARRIERMEN man rails of *USS Forrestal* (CVA 59) at Port-au-Prince in honor of Haitian president.

Iwo Jima, *John Willis* is built on a keel designed for convoy escort work, which requires capabilities to excel in anti-submarine warfare.

• Up at the naval shipyard in Brooklyn, USS **Benner** (DDR 807) has undergone modernization, while USS **Everett F. Larson** (DDR 830) has wound up a thorough overhaul.

• The Reserve Fleet's Florida Group has inactivated a whole batch of ships, including the self-propelled barracks ships USS **Benewah** (APB 35) and **Mercer** (APB 39); the landing craft repair ship USS **Gordius** (ARL 36); USS **Chloris** (ARVE 4), an aircraft repair ship (engines); and the LSTs USS **Bulloch County** (LST 509), **Dodge County** (LST 722), **Maricopa County** (LST 938), **Meeker County** (LST 980) and **Montgomery County** (LST 1041).

Your Navy's undersea fleet is also undergoing a few changes. Within the next ten months five submarines will be inactivated and replaced by new construction nearing completion. Work has already begun on the first of the five, USS **Seadog** (SS 401), to be followed by **Burrfish** (SSR 312), **Corsair** (SS 435), **Tigrone** (SSR 419 and **Queenfish** (SS 393).

Plans have also been changed for three new ones. The guided missile submarine listed in the fiscal 1956 program has been enhanced by plans for a nuclear power plant, making her an SSGN. Two conventional attack subs now abuilding, USS **Grayback** (SS 574) and **Growler** (SS 577), will be completed as guided missile submarines (SSG). And, finally, with the arrival of USS **Bream** (SSK 243) in Hawaii, all five of the Pacific Fleet's hunter-killer subs are now based at Pearl Harbor. The others include the small K-boats USS **Bass** (SSK 2) and **Bonita** (SSK 3); and **Bashaw** (SSK 241) and **Bluegill** (SSK 242).

First Fleet Visits Frisco

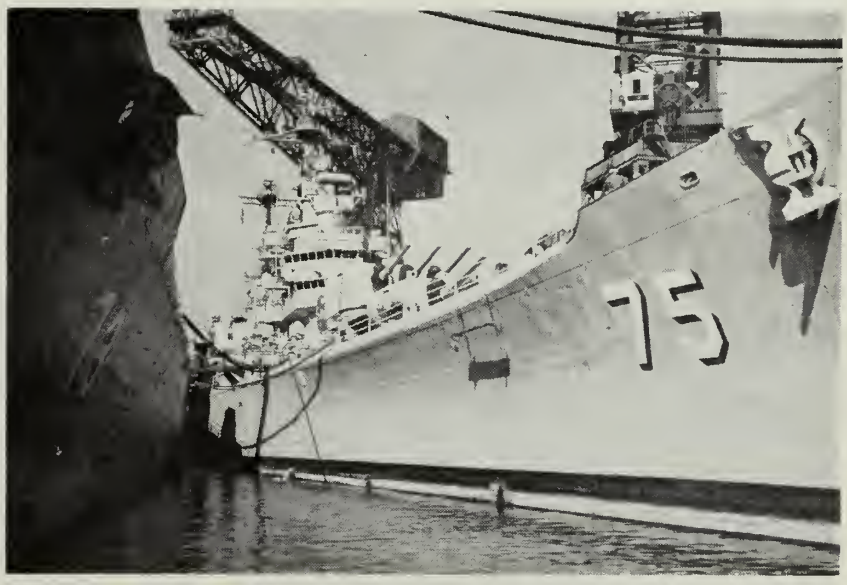
San Francisco, that "Baghdad on the Bay" acclaimed by many sailors as the world's best liberty port, has added glitter to its reputation by playing host to 35 ships and 15,000 personnel of the U. S. First Fleet.

The ships visited San Francisco for liberty and "open house" activities between phases of routine PacFleet training exercises off the California coast. Larger units berthed along the city's fabled Embarcadero and at Oakland and Alameda were the attack carriers USS *Essex* (CVA 9) and *Bon Homme Richard* (CVA 31); the anti-submarine warfare support carrier *Boxer* (CVS 21); the heavy cruisers *Toldeo* (CA 133) and *Bremerton* (CA 130).

"Small boys" and auxiliaries included USS *John R. Craig* (DD 885), *Orleck* (DD 886), *Perkins* (DDR 877), *Rupertus* (DD 851), *Leonard F. Mason* (DD 852), *George K. MacKenzie* (DD 836), *Henry W. Tucker* (DDR 875), *Rowan* (DD 782), *Gurke* (DD 783), *Henderson* (DD *Kenzie* (DD 836), *Henry W. Tucker* 785), *Southerland* (DDR 743), *Wiltsie* (DD 716), *Theodore E. Chandler* (DD 717), *Hamner* (DD 718), *Chevalier* (DDR 805); the ammunition ship *Firedrake* (AE 14); attack cargo ship *Chara* (AKA 58); refrigeration ship *Pictor* (AF 54); and fleet oilers *Taluga* (AO 62) and *Ponchatoula* (AO 148).

The undersea Navy was represented by USS *Rock* (SSR 274), *Carbonero* (SS 337), *Cusk* (SS 348), *Tunny* (SSG 282), *Charr* (SS 328), *Ronquil* (SS 396), *Segundo* (SS 398), *Seafox* (SS 402), *Bugara* (SS 331) and the sub tender *Nereus* (AS 17).

Normally based in San Diego, with some units at Long Beach, the First Fleet is the Eastern Pacific counterpart of the Seventh Fleet.



SIDE BY SIDE — *USS Helena* (CA 75) is shown moored inboard to *USS Saint Paul* (CA 73) at Yokosuka prior to taking over as flagship for Seventh Fleet.

UP FROM THE DEPTHS comes *USS Tunny* (SSG 282) to launch surface-to-surface guided missile *Regulus* from platform on her deck in cloud of smoke.

Hypervelocity Gun

Not long ago, test-firing a super-high-speed missile in a laboratory would have had about the same effect as setting off a 500-pound bomb in the middle of your living room. Now, thanks to a hypervelocity gun that can fire golf-ball-sized projectiles at speeds of almost 7000 miles per hour, the scientists are able to bring their missile tests indoors.

In the past, missile research had to be done in the field with full-size projectiles on a trial and error basis, since there was no way to fire small objects at such terrific speeds or to photograph them in action. Costs ranged from $10,000 to $50,000 per test.

The new gun, developed by the Hyperballistics Division of the Naval Ordnance Laboratory, White Oak, Md., makes it possible to tell, under controlled conditions, how a missile will act in the air and how the air will react to a missile before going to the trouble and expense of firing a full-size projectile. Costs are reduced to about $200 to $2000 per test.

The gun is about 16 feet long and has a 40mm bore. Its propellent force is helium, heated by the steam which results when hydrogen and oxygen are mixed with it. A trailer carries the compressed gas equipment which fires the gun.

It is anticipated that the new research tool will prove invaluable in adding to man's knowledge of the "heat barrier" which now hampers high-speed flight.

Latest in Headgear

New helmets, with almost as many built-in gadgets as next year's cars, are now being supplied for the protection and comfort of the men who fly the Navy's high-speed planes.

Developed by BuAer, the latest headgear has a retractable eyeshield assembly to hold either clear or tinted lens material, more comfortable, noise-reducing earcups, and a more compact communications harness, which makes use of a new jack, containing the transformer and leads for the microphone and headset.

The helmet shell is made of rigid plastic foam. When hit hard enough this material is crushed, thus dissipating the force of a blow rather than absorbing it, as it would if it were to remain solid. The shell is fitted to individual head sizes by a system of soft, double-thick, foam neoprene pads for back, crown and front.

Even the chin strap and tabs for the oxygen mask have been redesigned to hold the helmet and breathing apparatus in place during high-speed, high-altitude bail-outs.

Distribution of the headpieces began in April.

Aircraft Fire Control System

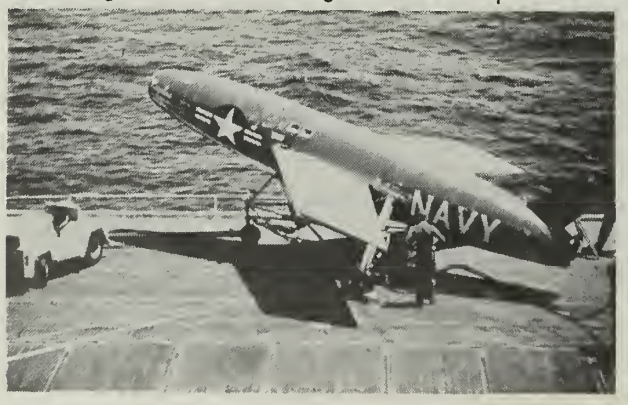
Fulfillment of a multi-million-dollar contract for production of the blind-flying Aero-13 fire control system which can detect and shoot down aircraft in any type of weather is under way.

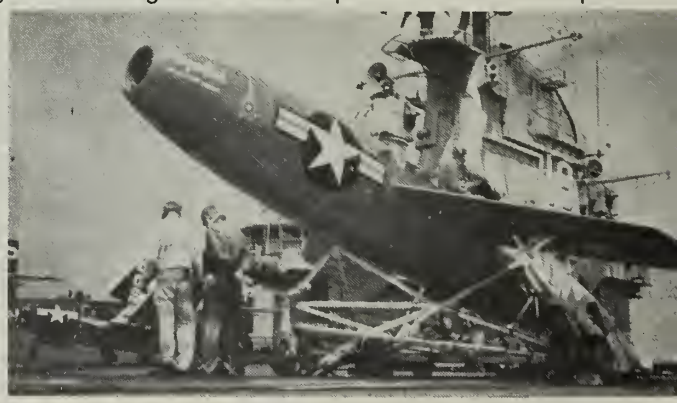
Development of the Aero-13 has resulted in a new and compact cylindrical design which is installed as a unit in the nose of the aircraft. This installation provides important space and weight savings and makes maintenance much easier.

The Aero-13 will be installed in the F4D *Skyray* all-weather fighter interceptor, a carrier-based jet.

The Aero-13 is the result of an earlier design, the APQ-35 fire control system.

REGULUS GETS 'STEAMED UP'—New method of launching with 'baby carriage' uses steam catapult for first time. *Left: Regulus* with carriage is raised up to the flight deck. *Right:* Missile is positioned on catapult.





Worcester Wins More 'E's

The light cruiser USS *Worcester* (CL 144) claims to be one of the best warships in the Fleet and she has some newly won "E"s to back up her claim.

Proudly adorning her No. 2 smokestack is a mammoth red and black "E" which the ship won for excellence in engineering. In addition, all six-inch turrets on the ship are each displaying an "E" as a result of their expert shooting last year.

The "E" for engineering excellence was presented to *Worcester* after a year-long competition with all ships in the Battleship-Cruiser Force, U. S. Atlantic Fleet. The winner was determined on the basis of operational conditions and requirements of all ships.

On board *Worcester,* inspections were held on administration and departmental files as well as all engineering spaces. Also taken into consideration were reports on full power and economy runs and efficiency to combat possible breakdown on machinery.

A high mark was attained by repair and maintenance men. Because of the work by this group of men, *Worcester* suffered no breakdowns during the past fiscal year and was always able to get underway or carry out scheduled exercises.

Soon after winning the award in engineering, *Worcester's* six-inch turret gunners won "E"s for outstanding marksmanship. The "E"s were painted on all six-inch turrets, indicating a "clean sweep," a rarity on any U. S. naval ship. *Worcester's* six-inch guns now display six "E"s with 11 hash marks painted under them. Hash marks are added when an "E" has been previously won by a turret.

The gunners from Turret Two came in for exceptional praise by *Worcester's* skipper. This year marked the fifth consecutive year that Turret Two has won the coveted "E."

During the gunnery competition, drills were observed and judged by officers selected from other ships. Photographs were taken of each round fired and reviewed for an accurate tabulation of hits and near misses.

Actual judging was based on the number of hits by each gun in the shortest period of time.

TALOS HEADS for target. She is a new surface-to-air guided missile developed by the Navy. *Talos* will work with USAF while helping *Nike* as defense weapon.

Cockpit Capsule

A standard ejectable cockpit capsule, which in addition to providing a recoverable escape device for the pilot and the plane's electronic equipment will also be interchangeable with other aircraft, is now under development by the Office of Naval Research.

The cockpit capsule will standardize the modern aircraft cockpit to meet basic requirements for efficient operation, escape and survival, wide mission capabilities and economy.

The capsule will be produced in either one- or two-place units.

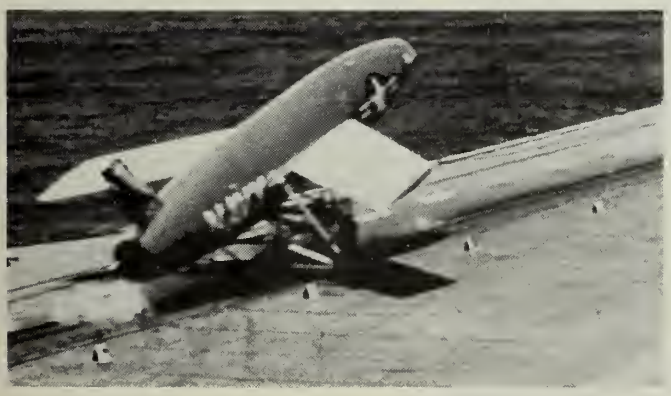
Cockpits on atomic powered aircraft may be removed and stored separately from the power plant to avoid contamination.

One of the main advantages of the over-all concept is the use of the cockpit itself as an operational flight trainer either when attached or detached from the rest of the aircraft. Briefings and dress rehearsals for actual combat missions can be performed with the pilot in the cockpit, whether on land, on board ship or in the air.

Jettisoning of the capsule will be by manual or automatic means. Stabilizing fins will extend as the capsule separates from the plane. Upon reaching the proper speed the main parachute system will be activated by a drag chute.

The capsule will float when landing on water and will be equipped with stabilizing and retrieving gear.

NEW METHOD is faster than launching from a stationary platform. *Left: Regulus* starts run down deck of *USS Hancock* (CVA 19). *Right:* As she leaves carrier for target, expendable carriage is automatically dropped.



MSTS Mercy Missions

Navymen usually think of Military Sea Transportation Service vessels in terms of their cargo and troop-carrying exploits rather than in terms of rescue-at-sea operations.

Yet summary reports from worldwide MSTS area commands show that MSTS ships participated in 58 mercy, rescue and search missions last year while engaged in transportation of military personnel and dependents and cargoes to overseas ports in many parts of the world.

Most of the mercy missions were carried out by troop transports which carry medical officers and hospital facilities, but in each instance an MSTS ship—in keeping with the age-old rule of the sea—altered course to answer an appeal for help on the high seas. Some voyages were interrupted as much as five days by acts of good samaritanism; others were carried out at great personal risk by MSTS medical officers and boat crewmen who braved hazardous seas in motor whaleboats to reach ill, injured or burned patients in other ships.

At least one MSTS craft figured in more than one mercy mission: her log shows that USNS *General William O. Darby* altered course five times on as many voyages to assist those in peril on the sea.

Her missions included rendezvous with USCG *Rockaway* to take aboard two ill Coast Guardsmen, and with USN *Pvt. F. X. McGraw* to take aboard that ship's master for medical treatment; changing course to assist an ill seaman on the German vessel *Blumenfeld;* taking in tow the disabled British sloop *Stella;* and answering a distress message from the seriously damaged ss *Liberator,* escorting her for five days until relieved by a tug.

Other highlights of the year for MSTS "angels" included the rescue of seven survivors of a Navy seaplane ditched in mid-Pacific, and the successful transfer of 132 Army passengers from an LST to an MSTS cargo ship after the LST's main deck plating cracked in a severe Bering Sea storm. MSTS is headed for another record in rescues this year.

Petty Officers' Lounge Is 'Dream Come True'

A newly established Petty Officers' Lounge was christened in Pearl Harbor, Hawaii, early this spring. The lounge is open to all first and second class petty officers, including NCOs of equivalent rank from the other services.

The opening of the PO Lounge is a "dream come true" to a group of 12 hard-working petty officers. These men, members of the Enlisted Men's Club Advisory Council, were instrumental in the planning and actual building of the lounge. The 12-man group devoted over 4000 man-hours during their liberty time, doing as much of the actual construction work as possible.

The PO Lounge was officially opened by the Pearl Harbor Naval Station's skipper when he cut the orchid leis which had been draped across the entrance to the lounge. More than 600 guests were on hand for opening night.

Outstanding features of the lounge include a stag bar, hi-fi juke box, and a large dance floor. If you're a first or second class PO, and you're in the Pearl Harbor area, the PO Lounge offers you a good liberty spot. Present plans call for a dance band to play on 10 to 12 nights each month.

In case you have any trouble finding the new PO Lounge, it's located on Kamehameha Highway, adjacent to the EM Club.

CUTTING of leis by CAPT R. H. Groff, USN, CO of Pearl Harbor NavSta, marked club's opening.

PO LOUNGE was built by 12 petty officers, members of Enlisted Men's Club Advisory Council, who spent over 4000 liberty hours on the project.

Nice Forms—Thousands of 'Em

Plenty of paper work is in the offing for a new unit of the Bureau of Supplies and Accounts.

On 1 July, the Forms and Publications Supply Office will officially open its doors for business in BuSandA's Washington headquarters.

At that time, it will assume the responsibility of centralized inventory and distribution control over some 10,000 Navy forms and 27,000 publications, with an inventory valued at approximately $25,000,000.

It's all a part of the trend toward wider use of the central inventory control manager plan.

The Navy already has 14 such offices, called supply demand control points, each of which has Navy-wide inventory control over a specific type of material. Materials range from items in common use, such as paints and tools (at the General Stores Supply Office in Philadelphia) to complicated electronic tubes and replacement parts (at the Electronics Supply Office in Great Lakes, Ill.).

It is expected that the forms and publications office will transfer its headquarters in January 1957 to the Navy's newest supply activity now under construction in Byron, Ga.

LAST YEAR'S SWEEP netted crew for four MSCs. *Right:* 1956 'Bandwagon' totaled enough to man five sweepers

Navymen Get on the MinLant Bandwagon

MINE MEN OF MINLANT down Charleston way hitched their sweeps to a "bandwagon" and cleared the way for a record-breaking shipping-over ceremony.

The 1956 MinLant Bandwagon reenlistment festival, the fourth to be held in the Charleston, S. C., area, came up with 105 Mine Force reenlistees. This is enough to man five of the Navy's new coastal minesweepers.

The reenlistment drive for 1956 bettered last year's record that came up with enough minemen to operate four minesweepers.

The mass ceremony drew a crowd of approximately 500 spectators as well as a star-studded guest list who witnessed Rear Admiral Neil K. Dietrich, USN, Commander of Mine Force, U. S. Atlantic Fleet, administer the oath of allegiance to the men who will see the Navy go nuclear during their upcoming service.

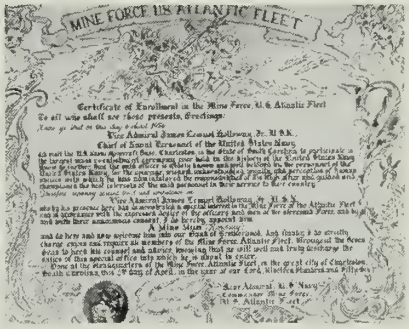
Guest speakers included VADM Holloway, the Chief of Naval Personnel who discussed naval manpower, and praised the service of the career enlisted man in war and in peace.

The MinLant Bandwagon started rolling for the career mine men and their wives the day before the ceremony.

The "Reenlistment Flotilla" of Mine Force ships took them for a cruise of Charleston harbor during which time they enjoyed a luncheon served aboard their ships. The day also included a tour of Charleston's famous Middleton Gardens.

The Bandwagon rolled on into the evening with a magic show and an orchestra dance for all MinLant enlisted personnel.

To top off the ceremony and festivities for the celebrating reenlistees, a total of $175,000 in bonus and reenlistment checks was handed out to the mine men.



CERTIFICATE of Honorary Mine Man was presented in ceremony. *Below:* Posters marked reenlistment sweep.

DESLANT MINE MEN *(rt)* who signed up for another hitch were addressed by VADM Holloway *(left)*.

Brief news items about other branches of the armed services.

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A HELICOPTER has been successfully employed as a hoisting crane, and has opened up an entirely new field of usefulness for the whirlybirds.

At Shreveport, La., a crane was needed to hoist a 1250-pound pedestal for a storm detector radar to the top of a 125-foot tower. No crane was available and Air Weather Service personnel, who were responsible for installing the giant equipment, began looking around for a substitute.

The problem was solved when a helicopter was brought in. The big "eggbeater" hovered over the machinery while technicians attached cable slings to it. An observer knelt in the doorway of the aircraft's lower deck, and through the intercom system, advised the pilot of the proceedings. When the hitch had been made, the engine roared, the helicopter lifted, and the equipment came up off the ground. The pilot held it steady, about four feet in the air, while the men removed the wooden base which was bolted to the bottom of the radar pedestal.

A few moments later, the helicopter took its heavy burden to a point just above the tower, and with the assistance of the observer and a waiting crew on the tower top, lowered the equipment gently into place. The technique was highly successful, and saved considerable money. The pedestal is part of an Air Force weather radar which can locate storms as far as 300 miles away, and give detailed information on the size, intensity, type of precipitation, direction of movement, height, and other important data on storms.

★ ★ ★

A VERSATILE LONG-RANGE RADIO transmitter-receiver for jeeps, tanks and trucks that goes on the air moments after being dropped by parachute is under development by the Army.

Engineered to replace models used in World War II and Korea and four times more powerful, the set combines advanced design with more power into a small space. It covers more distance, gives clearer signals and gets through more often than the earlier model.

In forward combat areas extremely wide frequency range of the new set offers a better opportunity for Infantry, Artillery and Armor to talk to each other, knitting these units into a closer tactical team.

ARMY RECON DRONE with speed of 228 mph is controlled from ground. Turns in photo battle report in hour.

Both voice and radio teletype messages can be sent and received at the same time. A few added parts link in the Signal Corps lightweight 100-words-per-minute teletypewriter—an impossibility with earlier sets. Also, if desired, the transmitter can be remotely controlled from up to 75 feet away.

A novice can be taught in 10 minutes all he needs to know about using the set, which knobs to turn, and when. The radio does the rest by automatically tuning itself and its antenna.

The new radio is powered by its vehicle's regular battery, plus a special generator, and fits snugly into its reserved space in reconnaissance cars, tanks, and jeeps.

It works in temperatures from minus 40 to plus 149 degrees F., in rain, sleet or snow.

★ ★ ★

PLANS FOR THE DESIGN and construction of a large solar furnace at a site at approximately the 9000-foot level in the Sacramento Mountains of New Mexico has been announced by the Air Force.

Under ideal conditions this solar furnace (which is a system of mirrors capable of concentrating the sun's energy on a single spot) may attain radiation temperatures of 7000°F to 8000°F over a substantially larger area than any other furnace known to exist in the world today.

The furnace will be used for high temperature research and testing of materials and weapons components; for duplicating, in so far as possible, the thermal effects of nuclear weapons on various materials; and for high temperature research in chemical reactions.

The possibility of using the sun's radiation to reach very high heat levels over reasonably large areas has been successfully explored. Studies and experiments have confirmed the fact that a properly designed, approximately located solar furnace is the best known practical means for attaining and controlling, on a laboratory basis, high thermal level radiation in the absence of magnetic and electric fields.

The Air Force now maintains a solar observatory on Sacramento Peak, in the same mountain range on which the solar furnace will be located.

OFF SHE GOES—New version of the USAF guided missile the *Matador* is test-fired in New Mexico.

A SPECIAL LOW GROUND pressure tractor has been developed by the Army Corps of Engineers at Fort Belvoir, Va., to tow "trains" of supplies and material over soft winter snow and summer muskeg in the Arctic.

Fabricated essentially of parts from a conventional tractor, it has a unit ground pressure of only 3.4 pounds per square inch—almost five pounds per square inch less than that of its standard counterpart.

The tractor, powered by a six-cylinder diesel engine capable of 225 horsepower, is equipped with an extended frame which provides a track 160 inches long on the ground. Track "shoes," 54 inches wide, make the extremely low ground pressure possible.

The tractor utilizes standard controls, steering clutches and transmission. It also incorporates a torque converter with a manual locking device, and a cab which provides protection and comfort for the operator.

A smaller version of the tractor has also been developed. Thirty-six-inch-wide track shoes are used to provide a unit ground pressure of 4.15 pounds per square inch.

Both tractors towed sleds laden with heavy supplies during tests conducted by the Army Transporation Corps on the Greenland Ice Cap and at Houghton, Mich. Tests indicate that the tractors may provide the armed forces with a comparatively slow, but effective Arctic "locomotive."

A unit ground pressure considerably lower than that provided by standard commercial tractors is required to permit successful cross-country operation in the Arctic. Improper weight distribution and the lack of flotation make it difficult or impossible for the standard tractor to operate in the soft winter snow and summer muskeg.

★ ★ ★

A NEW TEST CHAMBER that can simulate altitudes in excess of 150,000 feet is under development by the Air Research and Development Command.

The chamber will be used to study effects of very high-altitude flight on men and to aid in designing protective equipment for Air Force pilots. The 46-ton chamber is the largest personnel altitude chamber in use by the Air Force.

Three pumps and special valves make it possible to decompress the chamber as quickly as an airplane would be decompressed if its canopy were blown off. This is a condition that most other chambers can only approximate. Another feature is the automatic control system which makes it unnecessary for the operator to manipulate valves to maintain a given altitude.

ARMY HAS DRY RUN in wet sea. Transportation Corps practices LCM landing for summer DEW Line supply job.

AIR FORCE *GLOBEMASTER* opens to load 82nd Division paratroopers in practice for Operation Arctic Night.

The new chamber is divided into six compartments. The largest, or main chamber, is used primarily for altitude tests of instruments and systems and has a large seven-by-eight-foot door through which large and bulky equipment can be wheeled. This is also used as a vacuum accumulator in explosive decompression tests, when canopy blowing is simulated in the training section of the trainer.

Personnel and personal equipment are taken to high altitudes in a training chamber, while to one side of this smaller compartment is a one-man chamber which simulates a cockpit.

Both the main and training chambers have locks at one end, where observers are maintained at lower altitudes than the adjoining section in which tests are being conducted. In the event of emergency, the altitudes in the testing chambers and locks can be equalized, allowing the observer to enter quickly and render aid to the human volunteer.

The sixth compartment is the animal chamber, a small unit that can be rotated in any degree around its 42-inch dimension. It has an adjustable animal rack, a sling to hold the animal in certain positions, and special devices to make it comparatively simple to take readings of the animal's skin temperature, blood pressure, heart tracings, etc. Two formica disks in the top and bottom make X-ray photography of the animal possible at all times during altitude tests.

★ ★ ★

A STUDY to determine how nuclear power might be applied to Army Transportation Corps equipment used in land and water operations is underway by the Army.

Items to be considered will include certain rail locomotive equipment, several types of Army harbor and inland waterways craft, and special cargo-carrying land vehicles of very large size known as "land trains."

The Army considers that the application of nuclear power to the field of military transportation has great potential and will help achieve strategic mobility.

THE BULLETIN BOARD

Dates and Rules Set for Advancement Exams to E-4, E-5, E-6

Servicewide examinations for advancement to pay grades E-4, E-5 and E-6 will be conducted in August for all ratings except PI and AL, which are being consolidated with other ratings.

Examinations will be held on the days listed for advancement to the following grades:

- Tuesday, 14 August—Pay Grade E-4 (Petty Officer third class).
- Tuesday, 21 August—Pay Grade E-5 (Petty Officer second class).
- Tuesday, 28 August—Pay Grade E-6 (Petty Officer first class).

However, it will be necessary to apply quota restrictions to certain rates owing to:

- The total number of personnel in the rate or rating exceeding the requirements for that rate or rating.
- The total number of personnel in a pay grade exceeding the total requirements for that pay grade.
- The limitation on the total number of petty officers that may be on active duty in the Navy.

The examinations will be used for:

- Advancement of USN and USNR personnel on active duty and Naval Reserve personnel in training and administrative billets with the Naval Reserve (TAR).
- Change in rating from AL to AT in accordance with the provisions of BuPers Inst. 1440.10.
- Change in rating from PI to LI in accordance with the provisions of BuPers Inst. 1440.15.
- Change in rating to GS, GF and AQ in accordance with the provisions of BuPers Inst. 1440.14. Because of the excellent opportunity for advancement in these ratings, commanding officers have been urged to encourage eligible personnel to participate in this examination for change in rating or advancement and concurrent change in rating.
- For combinations of advancement and change in rating as provided for in BuPers Inst. 1418.7B.

(This instruction prescribes eligibility requirements, sets forth schedule of examination dates, and assigns responsibilities for service-wide competitive examinations and performance tests.)

Personnel in the rating listed who are eligible may take more than one examination in the same rating in the series, or may take one examination for more than one purpose. For example: If you are a PI2 and eligible, you may take the LI2 exam for change in rating and you may also take the LI1 exam for advancement and concurrent change in rating.

- Seamen attached to a command having an allowance for Photographer's Mates may participate in the examination for PH3 if they are qualified.

Personnel in pay grade E-3 who are recommended for advancement and participate in the ET, FT, AD or PH examination will be examined for the related emergency service rating in the normal path of advancement for which they are best fitted.

This is applicable to USN and USNR personnel in TAR billets as well as USNR personnel on active duty with the Regular Navy. Details concerning selective emergency service ratings for pay grade E-4 will be the subject of a forthcoming BuPers Instruction.

The CAA certificate requirement for advancement to all pay grades in the air controlman rating is waived for the August examinations for those ACs who are not assigned to control tower duties.

Stenographic performance tests are no longer waived. All methods of taking dictation (including Stenomask) are acceptable, but if stenotype or Stenomask equipment is not available at the place of the examination, you will have to provide your own equipment.

Performance tests will be conducted before the service-wide competitive examinations.

The deadline for requesting examinations and the dates to be used for computing eligibility for advancement are set forth in BuPers Inst. 1418.7B. Details of the announcement of the August examination may be found in BuPers Notice 1419 (11 April).

"But where are you going to get a one-man working party?"

Management and Industrial Engineering Course Is Ready

A new officer correspondence course, *Management and Industrial Engineering* (NavPers 10942), is now available at the Naval Correspondence Course Center. This course, covering the principles of industrial management, consists of six assignments and is evaluated at 18 Naval Reserve points credit.

Application for enrollment should be made on form NavPers 992 (Rev 10/54), forwarded via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, New York.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 10—Announced distribution of voting information pamphlet and chart. Called attention to date of Kentucky primary elections.

No. 11—Serves as an interim instruction pending implementation of the new Department of Defense policy regarding solicitation of commercial life insurance aboard military installations.

BuPers Instructions

No. 1306.23C, Sup. 1—States that no further applications for duty with the Naval Security Group are desired until further notice.

No. 1306.25C—Provides duty assignment options for reenlistees, and promulgates instructions for disposition and assignment to duty of enlisted personnel who reenlist with continuous service in the Regular Navy.

No. 1520.16A—Provides information relative to courses of instruction in Atomic, Biological and Chemical Warfare Defense (ABCD).

No. 1910.14—Modifies existing instructions regarding the place of separation of enlisted personnel.

No. 5322.1—Establishes procedures for determining and evaluating the use of civilian personnel ceilings authorized by the Chief of Naval Personnel.

No. 5802.3—Furnishes information as to the requirements for admission of U. S. citizens to the Philippines for permanent or temporary residence.

BuPers Notices

No. 1050 (23 March)—Established procedures to strengthen administrative controls over recording of leave.

No. 1000 (28 March)—Announced change 2 to BuPers Inst. 1000.7, which is concerned with the programs and opportunities for naval personnel.

No. 1700 (30 March)—Provided current information concerning equipment and film for 16-mm. wide screen projection.

No. 1520 (30 March)—Provided information concerning Rescue Instructor Training Courses.

No. 1416 (2 April)—Described procedures whereby officers selected in fiscal year 1957 for whom written professional examinations are required, may report their full exemption from such examinations.

No. 1520 (9 April)—Announced selection of applicants for officers submarine training.

No. 1418 (11 April)—Announced service-wide competitive examinations for pay grades E-4, E-5 and E-6 to be conducted in August.

No. 1700 (11 April)—Announced Fleet Reserve Association contest, "Mrs. United States Navy, 1956."

No. 1133 (12 April)—Announced establishment of Career Appraisal and Counseling Course.

No. 1300 (12 April)—Announced Change No. 3 to BuPers Inst. 1300.19, concerned with the distribution and assignment of enlisted personnel.

No. 1760 (16 April)—Announced Change No. 1 to BuPers Inst. 1760.5, concerned with pre-separation counseling of service personnel regarding civilian employment.

WHAT'S IN A NAME

F.P.O.

The initials "FPO" are as familiar to most sailors as are "USN," "USA" or "LST." Many Navymen and their correspondents are unaware, however, of the organization behind the name "Fleet Post Office" and the importance of that name in your address.

During World War II practically any Navy port you'd care to name was the location of a Fleet Post Office. Today, the only two FPOs in existence are New York and San Francisco. These serve as standard addresses for Atlantic and Pacific Fleet units, respectively, and as liaison offices for the routing of Navy mail from civilian-operated postal concentration centers in those cities to Fleet units all over the world.

They are the only Navy postal units which know your ship's operating schedule, where she is today, where she will be next week or next month—and when and where you can next pick up mail. At the same time, the two FPOs have at their disposal all facilities for getting your mail to you with the least delay.

Civilian post offices in a number of U. S. ports have so-called "Fleet Stations" which some Navymen mistakenly use in addressing letters. Most of these stations take their names from the fact that they occupy buildings which housed FPOs during World War II—but they are not supplied with the information and facilities for speedy handling of fleet mail.

If you're on board a ship in San Diego harbor and want to mail a letter to a buddy up in Long Beach—or to a pal in another ship at San Diego, it may sound silly to address the letter "c/o FPO, San Francisco" but that's the correct way to do it. The letter will probably not go to San Francisco, unless your friend's ship has

departed for another port since you posted your letter.

Yet by addressing the letter care of the Fleet Post Office you insure delivery of your letter to your pal, even if his ship has suddenly taken off for the South Pole.

In addition to sending your mail "care of Fleet Post Offices," you can speed up service by using the ship's name, complete with hull number, or when writing to such commands as CruDivs and CarDivs, spell them out. Thus, to write a buddy attached to a flag such as cruiser Division FIVE—and keep the letter from being delayed by the locator service, you should address it like this:

Bernard R. Bilgewater SN USN 4220184
Staff, Commander Cruiser Division FIVE
c/o Fleet Post Office
San Francisco, Calif.

If in doubt about a Navy address, consult the captain's office. The SNDL—Standard *Navy Distribution List*—is the authority on correct addresses.

Informaciòn sobre Barcelona para Marina de Estados Unidos

When ordered to permanent duty in one of the ships assigned a home port in the Mediterranean, many Navymen are faced with the decision of whether or not to bring their dependents with them. This roundup is specifically for personnel ordered to the Barcelona area, but even if you're not home-ported at Barcelona, the description of living conditions may help you make up your mind.

Immunization—Children under one year of age must have completed their initial series of inoculations, which include vaccination against smallpox and diptheria, whooping cough, and tetanus immunization. All children over one year of age will be immunized against typhoid, paratyphoid fever and typhus. All adults will be required to be immunized against smallpox, typhoid and paratyphoid fever, typhus, and tetanus. A Schick test is required to determine adult immunity to diphtheria, with a full course of shots, if required. Booster doses will be adequate providing prior immunization can be demonstrated.

A bill of health of each person obtained from your physician or the nearest armed forces medical facility will be necessary.

Dental work for dependents should be completed before leaving the U. S., since only limited civilian facilities are available ashore in the Mediterranean area.

At present ships may expect to spend from 20 to 30 per cent of their time in port. Your wife may expect to spend from three to six weeks at a time without seeing you unless she wishes to follow the Fleet. (Providing your budget permits, and you can make arrangements for the care of your children, if any, your wife will be able to follow the Fleet to most ports of call in nearby countries.)

Finances—Living expenses are slightly higher than in the U. S. A daily station allowance of $1.40 (enlisted) and $1.80 (officers) is authorized for those men with dependents on station. Usually a dislocation allowance equal to one month's rental (BAQ) is granted on arrival of your dependents. For the first 45 days after you report on board, if temporary quarters are occupied by your family, or until permanent housing is obtained, whichever is the sooner, a per diem allowance of $9.00 is granted. No government quarters are available ashore for dependents.

"I knew I made a mistake by asking for a sailor suit!"

Every officer and enlisted man should estimate the situation before he brings his dependents to Europe. To date, CinCNELM has approved all requests for permission to bring dependents into the area, but this should not be interpreted as an endorsement or a recommendation that you do so.

Hand Baggage—Each person is allowed two pieces of hand baggage in cabins aboard MSTS ships. Foot lockers are not considered hand lugage and may not be stored in cabins.

Automobiles—Before a privately owned vehicle may be brought into the Mediterranean area, permission must first be obtained from the commanding officer of the Barcelona-based ship to which you are assigned. This can be accomplished by a message or speedletter. Only officers and those enlisted men with dependents on station are permitted to ship motor vehicles.

Automobiles shipped overseas should be in good mechanical condition. Locked gasoline tank caps are advisable and are required for MSTS shipment. Vaseline, machine oil, or masking tape on chrome surfaces will prevent rusting from salt water. The car must be completely empty except for tire changing tools.

Before sailing be sure to:

- Bring with you your registration card, title, and bill of sale for the automobile being transported.
- Insure your automobile for foreign operation through your local agent. This should include, at the very minimum, personal liability, fire and theft, property damage, and marine transportation. Collision insurance, if desired, should be taken out in the States; however, automobile insurance can be obtained in Barcelona at reasonable rates.

It is not necessary to purchase international registration cards and driver's licenses in the States prior to sailing. However, it is possible, although much more expensive, to secure these from the AAA in the States.

Foreign Customs and Currency—Before departure from the States, full information concerning foreign customs and currency regulations should be obtained from the State Department or travel agency. Personnel to date have had no difficulty in taking personal effects and baggage from Italy to France. French and Italian regulations concerning the entry of cigarettes, tobacco, and radios are particularly stringent, and are enforced. Present rate of exchange is 43 pesetas per dollar.

Housing—Adequate housing is available in Barcelona, or its suburbs. Most Americans prefer to rent furnished apartments. Unfurnished apartments do not include, in general, anything more than a coal cookstove and the bare walls. Even the lighting fixtures have to be provided in unfurnished places. The differential is so small that it is much wiser to rent furnished houses or apartments, even if you intend to bring your own furniture.

The best advice offered to those who do not know what to bring to Barcelona is to bring everything you own. Be sure to bring a gas cooking stove and refrigerator. Spanish cook stoves are mostly coal burning, or if gas, they are very small and often without ovens. Spanish refrigerators are much smaller than those used here. Electric stoves using 220 volts cannot be used in Barcelona where the power supply is 110 volts, with little or no chance of getting full voltage except during certain periods of the day when the demand for power is at its low point.

Most electric appliances can be operated from the normal wiring cir-

cuits; however, the current is 50 cycles and this does not permit the proper operation of clocks, record players, etc., that require 60 cycles. Most Spanish houses, and the cheaper apartments, have inadequate heating systems, according to standards you are used to. Apartments are available with central heating and many have fireplaces. If you have an oil heater bring it with you.

Most rents range from $100 to $150 per month, including utilities, with the rent depending on the location, type of dwelling, number of rooms, and whether or not it is completely furnished, partly furnished or unfurnished. These rents are slightly higher during the winter months to cover the cost of central heating systems in those places where it is available.

Hotels—The new arrival in Barcelona may find it advisable to stay at a hotel for the first week or two, unless a house or an apartment has been rented ahead. Hotels are reasonable, and even when meals are included (full pension) the cost is not too exorbitant. Besides, by staying in a hotel, it gives one a chance to get oriented and rest after the trip across.

Where you are going to live, and what kind of place you think you would like to rent, is important and a week or two in a hotel room while you make up your mind is well worth the extra expense. Another consideration is the arrival of your household goods. You should get an idea when they can be expected so that you will have what you need to live until you are settled.

There are plenty of hotels in Barcelona with rates varying according to class and location. There are also many nice pensions or rooming houses with meals, but it is advisable to stay at a hotel first and look over the pensions carefully before deciding which to occupy.

Restaurants—All the best hotels, and most of the cheaper hotels, have restaurants. Most of the restaurants have an a la carte menu and another menu that shows what is being served to the guests on full pension. Until you know what the dishes are, it is a good rule to take the regular menu and disregard the a la carte menu. Most foods are cooked in olive oil, and you may wish to have your food cooked in butter at a slight extra charge.

Barcelona also has seasonal entertainment such as the opera, ballet, football, bullfights, jai alai, boxing, wrestling, and numerous fiestas, with parades and street dancing. Tennis courts, riding stables, golf courses and yacht clubs are available.

Medical Care—Dependents are advised to use local doctors and hospitals. Many doctors prefer to have their patients in their own clinics, and will not go to a hospital of your choice. If you wish a certain hospital, you must clear that point with your doctor beforehand.

The medical officers from ships of the Fleet will provide immunization shots, routine examinations, and other necessary out-patient care during the visits of ships with medical officers to Barcelona. The ship's medical Department will issue the usual medicines and medical supplies (APCs, cotton, cough medicine, etc). Oils or vitamins for children and other special medicines must be ordered from the States.

Schools—Barcelona offers one English language school (Marymount). Instructions are offered for girls through the junior college level. At present, boys are limited to the ages of 3-7, although instruction can be provided through the fourth grade for boys if there is sufficient demand. The New York State curriculum of instruction is offered, and credits earned are fully accepted in the States. Text books are furnished by the school. Tuition for naval families would be $20.00 per month in the primary grades and $25.00 per month in high school and junior college for each student. Hot lunches are available at small additional cost.

There are, of course, Spanish schools available, but language difficulties may make their use undesirable in the higher levels of instruction. Official funds are available to assist in defraying costs of schooling up to an amount of about $225.00 per child per year. The Calvert Correspondence Course School System may be used.

Food and Supplies—There are certain limitations applicable to the port cities in this area from the standpoint of provisions and supplies generally considered unsafe for use, particularly by children, because of the danger of tuberculosis infection. This is applicable to milk, even after boiling, butter and cheese. Pasteurized milk and butter are available in Barcelona but the milk is watery and not so palatable.

Prepared infant foods, detergents for automatic washing machines, and other items which the American family has accepted as indispensable, are difficult, if not impossible to obtain in the local stores. Fresh meats, fish, and fruits and vegetables in season are plentiful.

Clothing—The climate in Barcelona is similar to that of Norfolk. The summers are comfortably warm. Winters, while generally mild by U. S. standards, are marked by cold nights and many damp and chilly days. No matter when you plan to arrive, you will be wise to bring adequate warm clothing. The temperature of the average European house is maintained at a very much lower degree than in the States and this may necessitate the renting or purchasing of a gas or oil heater.

The uniform of the day for officers is blue service from October until May. During the remainder of the year it is service dress khaki. During the summer months, in port, white service is worn after 1800. Bring plenty of uniforms. Dry cleaning facilities are poor in many of the Mediterranean ports. Only pressing is available aboard ship. Purchase of uniforms in this area poses a problem. You can have your blue service uniform tailored here, although the over-all cost is probably a bit more than you would pay in the States.

All-Navy Cartoon Contest
G. C. Vliet, PNA3, USNR.

"Reveille, Reveille."

Many officers order their uniforms from the Naval Uniform Shop in Brooklyn. Working khaki is worn at sea during the summer months, and is obtainable from Small Stores. Civilian clothes are appropriate on shore leave, and informal civilian attire is appropriate while at home. Tuxedos and summer dinner jackets, while not required, are occasionally worn.

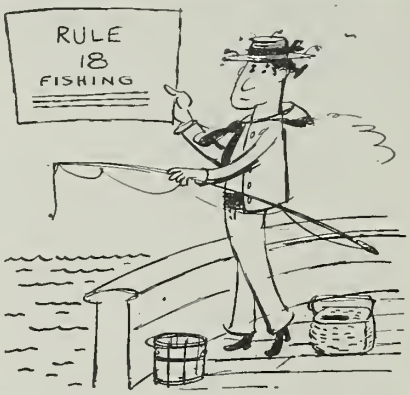
Liberty uniform for enlisted personnel is dress blue with white during most of the year. White is worn all day long during the summer months. It is recommended that a plentiful supply of uniforms be brought.

All personnel are encouraged to wear civilian clothes while ashore.

Dependents—Wives will do well to bring along much of their present wardrobes. The better made outfits cost as much here as they do at home, and the cheaper clothes are inferior in cloth quality and workmanship. Many people have suits and dresses tailored locally, using woolens and brocades purchased by their husbands. Women's tailoring is reasonable. However, for everyday wearing apparel, most of the wives rely on clothing purchased from home. Hats are available as are gloves, at moderate costs. Lingerie is beautiful, but expensive. Bring a good supply of nylons. Walking is a popular pastime, and it is recommended that one or two pairs of walking shoes be in your wardrobe.

HOW DID IT START

Navy Regulations



Soon after assuming command of the Continental Army, General George Washington in 1775 undertook the creation of a Continental Naval Force. Recruiting for the Army was a difficult task because the men of that day had little experience in overland combat. Seafarers, however, were abundant among our early Americans.

They were members of a highly spirited merchant marine and privateer fleet which had grown accustomed to the use of "boarding pikes" and the "six-pounder" cannon. Merchant vessels were forced to protect themselves from attack by pirates and privateers of other nations. U. S. privateers were authorized to attack shipping which brought supplies to enemy forces on this continent.

The potential Navyman was leading an exciting life with little restriction as a privateer. One problem of recruiting these men, therefore, was to regiment the crews into a disciplined naval squadron.

With this background in mind, it is interesting to read the first set of naval regulations, an eight-page book entitled, *Rules for the Regulation of the Navy of the United Colonies.*

This first Navy "Blue Book" was drawn up in 1775 by John Adams and six advisers. Imagine yourself in the brass buckled shoes of one of America's first Navymen, serving under this edition of *Navy Regs.*

If you were an officer, you would be especially careful not to lose your temper. Commissioned officers, according to Article 3, who swore or cursed were fined "one shilling for each offense," and warrant officers had to forfeit six pence for each offense. Article 3 also provided that an intoxicated seaman should be placed "in irons until he is sober," and for this offense an officer must "forfeit two days' pay."

The captain of a ship, under Article 14, was directed to "discourage the seamen of his ship from selling any part of their wages or shares." "All ships furnished with fishing tackle," Article 17 directed, "being in such places where fish is to be had, the Captain is to employ some of the company in fishing; the fish to be distributed daily to such persons as are sick or upon recovery, provided the surgeon recommend it, and the surplus, by turns amongst the messes of the officers and seamen, without favour or partiality and gratis, without any deduction of their allowance of provisions on that account."

Article 22 provided that "if the bread proves damp," it is to be "aired upon the quarter deck or poop." Each man's mess on Wednesday consisted of a pound of bread, two ounces of butter, four ounces of cheese and a half pint of rice. On all other days of the week meat was included in the diet. Mariners added variety to this simple fare by seasoning it with vinegar.

The pay scale for officers and enlisted men, as prescribed in a Congressional Resolution, ranged from $32 a month for captains, to $6.66 a month for seamen. But as a salesman's salary is supplemented by a percentage of his sales, the Navyman of that day could boost his income with a percentage of his ship's "prizes."

Although not a part of the Blue Book regulations, the following manner of dividing the captured prizes was prescribed in a Resolution of Congress. Officers, seamen and Marines were entitled to "one half of all ships of war made prize by them, and to one third of all transport vessels." Division of the prize money was on a sliding scale ranging from six shares for the captain to one share for each ordinary seaman.

The person who first discovered a ship, which was afterwards captured, was given double his ordinary share of the prize money. And the first one to board the captured vessel in the process of seizure was given triple his share of the prize money.

There are two copies of the original *Regulations* known to be in existence.

Here's Chance for Eligible EMs To Become Submarine Sailors

Would you like to become a submarine sailor? Applications are now being accepted from certain personnel for initial sub training at Submarine School, New London, Conn.

Men in the ratings of QM, TM, GS, ET, RM, YN, CS, EN, EM, IC, SN and FN are in particular demand in the Submarine Force. Also eligible to apply are men in the ratings of RD, SO, GM, FT, MM, and SD.

You must meet the following requirements: 1) have 24 months' obligated service commencing with the convening date of the class to which you are ordered; 2) be a volunteer for sea duty in submarines; 3) have a minimum combined ARI and MAT or ARI and MECH of 100; 4) be physically qualified in accordance with Art. 15-29, *BuMed Manual;* 5) have shown evidence of emotional and mental stability and maturity.

Requests for initial submarine training should be submitted to the Chief of Naval Personnel (Attn: Pers B2131) via your CO.

Enlisted personnel separated from the submarine service who are assigned the designator (SS) may request return to duty in subs, provided they are physically qualified.

Details concerning training and return of personnel to submarine duty are in BuPers Inst. 1540.2A.

You May Benefit from New Rules on HHE, Travel Allowance

PASSAGE OF PUBLIC LAW 368 (84th Congress), which changed some of the rules concerning payment of travel allowance and shipment of household goods for several categories of military personnel, may mean money in your pocket. Some of these features are summarized below.

Before 11 Aug 1955, the date PL 368 became effective, *only Regular Navy personnel* who were permanently retired or transferred to the Fleet Reserve were permitted to select a home (as distinguished from "home" as previously defined in Para. 1150-3 of *Joint Travel Regulations,* or the place from which ordered to active duty) and receive travel and transportation allowances to that point.

Now, all members on active duty who are (1) permanently retired (including transfer to the Fleet Reserve or Fleet Marine Corps Reserve), (2) transferred to the temporary disability retired list, or (3) discharged with severance pay, on or after 11 Aug 1955, are entitled to travel and transportation allowances to a selected home (in accordance with Chapters 4, 7 and 8 of *Joint Travel Regulations*).

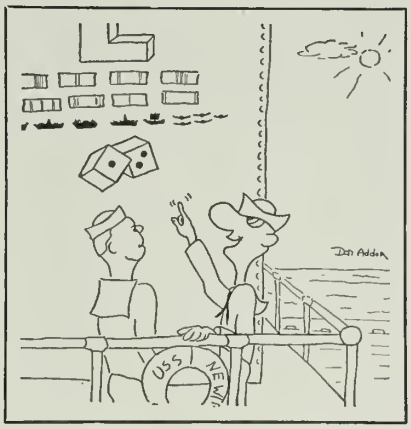
Shipment of household goods to any place other than the home you have selected is NOT authorized, regardless of comparative cost.

If temporary storage, nontemporary storage or additional information is desired, contact the nearest designated household goods shipping activity. A list of designated household goods shipping activities is contained in *BuSandA Manual,* Para. 29003-11b(1).

Retroactive Travel Allowance

Public Law 368 now extends entitlement to certain other categories of USN and USNR personnel. Section 3 of the act retroactively ratifies and validates the claims of certain Navymen who actually performed travel to their home between 1 Apr 1951 and 11 Aug 1955, but who were paid a lesser amount than the amount to which they are now entitled.

The act creates no new entitlement for Navymen who, under previous regulations, were privileged to select a home and receive travel and transportation allowances to that point. Examples of this category are Regular Navy personnel and Naval Reservists permanently retired between 1 Apr 1951 and 21 Sep 1953 (the date of the issuance of a pertinent Comptroller General decision).



". . . and that one's for Fleet Acey-Deucy Championship."

Selection of a Home. For the purpose of determining entitlement to an adjustment of travel and transportation allowances, the "home of selection" is presumed to be the place at which you, or you and your dependents, were residing on the date the right to select a home expired (one year from date of retirement). You can overcome this presumption by satisfactory evidence that you had in fact established a home at some other place before the time limitation had expired.

Measure of Entitlement. If otherwise eligible and if you have selected and traveled to your home within the time limits described below, you may claim and be paid any additional amount due you for travel, the travel of your dependents and transportation of household goods to your home. In the case of mileage allowance for yourself and monetary allowance in lieu of transportation for your dependents, the additional payment will be based upon a computation of these allowances for the official distance from your last duty station to your home of selection less the amount previously paid.

For household goods, the additional payment will be based upon the difference between the initial cost to the government and the amount the government would have paid had your goods been transported to your home—provided that the additional amount does not exceed the actual additional shipping costs paid by you.

Time Limitation. To qualify for payment of additional allowances if you were permanently retired, placed on the temporary disability retired list, or discharged with severance pay between 1 Apr 1951 and 28 Apr 1952, (both dates inclusive), you must have selected and traveled to your home on or before 28 Apr 1953.

If you were permanently retired, placed on the temporary disability retired list or discharged with severance pay on or after 29 Apr 1952 you must, in order to qualify for payment of additional allowances, have selected and traveled to your home within one year after you are retired or discharged.

The law does not permit these time limits to be extended for any reason, including hospitalization.

Eligibility. You are eligible to claim the additional allowances if, on or after 1 Apr 1951, you were:

- Retired for physical disability, placed on the temporary disability retired list (without regard to length of service) or
- Retired with pay for any other reason (including transfer to the Fleet Reserve or Fleet Marine Corps Reserve) with eight or more years of continuous active duty immediately preceding retirement (no single break of more than 90 days) or
- Discharged with severance pay with eight or more years of continuous active duty immediately preceding discharge (no single break of more than 90 days) and
- If you selected and traveled to your home within the time limits described above.

If you (and your dependents) traveled to your home within the time limits, but you did not ship your household goods within that time, shipment or reimbursement is authorized, provided that shipment is accomplished before 11 Aug 1956.

For further information, contact the nearest designated household goods shipping activity.

Summary of Enlisted Correspondence Courses Now Available

HERE'S A COMPLETE ROUNDUP of the Enlisted Correspondence Courses now available. This list includes many new ones as well as those preiovusly listed in ALL HANDS. Additional courses are being prepared and will be announced as they become available.

All enlisted personnel, whether on active or inactive duty, may apply for the courses.

An Enlisted Correspondence Course serves not only as a means of studying a naval subject of interest to you, but also as an aid in the satisfactory completion of the Navy Training Course applicable to your rating.

There have been administrative changes made since the complete list of Enlisted Correspondence Courses was last presented in the January 1954 issue of ALL HANDS.

For one thing, Enlisted Correspondence Courses will be administered (with certain exceptions) by your local command instead of by the Correspondence Course Center, as was the earlier practice.

If you are on active duty, your division officer will advise you whether or not the course you have applied for is suitable to your rate and to the training program you are following. If it is, he will see that your application is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have their courses administered by the Correspondence Course Center, just as in the past.

Active duty personnel enrolled in an Enlisted Correspondence Course before 15 April 1956 will continue to complete the course under the guidance of the Center.

After that date, when you want to take a course, see your division officer and ask for Form NavPers 580 (note the change in the form and number), "Enlisted Correspondence Course Application." He will forward it to the Naval Correspondence Course Center via your commanding officer and will handle all details from there on.

The change in procedure entails certain advantages to you. You won't have to mail your assignments to the Center, then wait for a reply. As you complete each assignment, your division officer will check the answers from a master sheet supplied by the Center and advise you on any problems you may encounter. You'll be able to work more closely with an authority in the field you are studying. You'll continue to get credit for your studies.

General Courses:	*NavPers Number*
The Bluejackets' Manual	91205
Manual for Buglers, U. S. Navy	91257
Ship Activation Manual	91215
Unifarm Code af Military Justice	10971
This is Your Navy	91208-1
Chemical and Biological Warfare Defense	91211
Field Manufacture of Industrial Gases	91505
General Training Caurse for Petty Officers	91203
Basic Courses:	
Basic Machines	91230
Blueprint Reading	91223-1
Electricity	91225
Mathematics, Vol. I	91219
Mathematics, Vol. II	91220
Advanced Mathematics, Vol. 1	91221
Use af Taals	91228
Non-rated Courses:	
Constructianman	91562
Fireman	91500-1
Seaman	91240
Stewardsman	91691-1
Rating Courses:	
Advanced Wark in Aircraft Electricity	91608
Aeralagy, Vol. II	91645
Air Controlman	91657
Aircraft Armament	91634
Aircraft Electrical Systems	91607
Aircraft Engines	91628-1
Aircraft Fire Control	91635
Aircraft Fuel Systems	91630-1
Aircraft Hydraulics	91624
Aircraft Instruments	91627-1

Rating Courses:	*NavPers Number*
Aircraft Materials	91616
Aircraft Munitions	91637
Aircraft Propellers	91631-1
Aircraft Structural Maintenance	91621
Aircraft Structures	91620-1
Aircraft Survival Equipment	91642-1
Aircraft Turrets	91638
Aircraft Welding	91617
Armed Forces Newspaper Editars' Guide	91456-1
Atamic Warfare Defense	91210
Aviation Boatswain's Mate, Val. I	91654-1
Aviation Boatswain's Mate, Val. II	91655
Aviation Electrician's Mate, Vol. I	91610
Aviation Electrician's Mate, Val. II	91611-1
Aviation Ordnanceman 3, Val. I	91659
Aviation Storekeeper, Vol. I	91651-1
Aviation Storekeeper, Vol. II	91652
Aviation Structural Mechanic Handbook	91622
Aviation Supply	91653-1
Baker's Handbaak	91444
Boatswain's Mate 3	91242-1
Boatswain's Mate 2	91243-1
Baatswain's Mate 1	91244-1
Baatswain's Mate, Chief	91245-1
Boilerman 3	91511
Boilerman 2	91512-1
Boilerman 1	91513-1
Boilerman, Chief	91514-1
Builder 3	91583
Builder 2	91584
Builder 1	91585
Builder, Chief	91586
Cargo Handling	91247
Cammissaryman 3	91440-1
Commissaryman 2	91441
Commissaryman 1	91442-1
Commissaryman, Chief	91443-1

Rating Courses:	*NavPers Number*
Construction Electrician's Mate 3	91568
Construction Electrician's Mate 2	91569
Canstructian Electrician's Mate 1, Vol. I	91570
Canstructian Electrician's Mate, Chief, Val. I	91571
Damage Controlman 3	91543
Damage Controlman 2	91544-1
Damage Cantrolman 1	91545-1
Damage Controlman, Chief	91546
Disbursing Clerk 3	91435-2
Disbursing Clerk 2	91436-2
Disbursing Clerk 1	91437-1
Disbursing Clerk, Chief	91438-1
Driver 3	91573
Driver 2	91574
Driver 1	91575
Driver, Chief	91576
Electrician's Mate 3	91523
Electrician's Mate 2	91524
Electrician's Mate 1	91525
Electrician's Mate, Chief	91526
Electricity for Fire Cantralmen and Fire Cantral Technicians, Vol. I	91326
Electricity for Fire Controlmen and Fire Cantral Technicians, Vol. II	91327
Electronics Technician 3	91373-1
Electranics Technician 2, Val. I	91374-1
Electronics Technician 2, Val. II	91375
Engineman 3, Vol. I	91516
Engineman 3, Val. II	91517
Engineman 2, Val. 1	91518
Engineman 2, Vol.II	91519
Fire Controlman 3, Val. I	91316
Fire Cantralman 3, Vol. II	91317
Fire Controlman 2, Vol. I	91318
Fire Controlman 2, Vol. II	91319
Fire Controlman 2, Val. III	91320
Fire Contralman 1, Val. I	91321

Rating Courses:	NavPers Number
Fire Controlman, Chief, Vol. I	91323
Flight Engineering	91632
Gunner's Mate 3, Vol. I	91309
Gunner's Mate 3, Vol. II	91352
Gunner's Mate 3, Vol. III	91353
Gunner's Mate 2, Vol. I	91311
Gunner's Mate 2, Vol. II	91312
Gunner's Mate 1	91356
Gunner's Mate, Chief	91357
Gyro Composses	91532
Handbook for Dental Equipment Maintenance and Repair	91689
Handbook for Dental Prosthetics Technician 3	91685
Handbook for Dental Prosthetics Technician 2	91686
Handbook for Dental Prosthetics Technician 1	91687
Handbook for General Dental Technician	91684
Handbook of the Hospital Corps	91666
Handbook for Hospital Corpsmen 3	91668
Handbook for Hospital Corpsmen 2	91669
Handbook for Hospital Corpsmen 1, & Chief	91670
Handbook for Hospitalmen	91667
Interior Communications Electrician 3	91528
Instrumentman 3	91382
Instrumentman 2	91383
Instrumentman 1	91384
Instrumentman, Chief	91385
Introduction to Aircraft	91601
Introduction to Communications	91254
Introduction to Radio Equipment	91406
Journalist 3	91451
Journalist 2	91452
Lead Computing Sights	91391
Lithographer 3	91472
Lithographer 2	91473
Lithographer 1	91474
Lithographer, Chief	91475
Machinery Repairman 3	91506
Machinery Repairman 2	91507
Machinery Repairman 1	91508
Machinery Repairman, Chief	91509
Machinist's Mate 3	91501
Machinist's Mate 2	91502
Mechanic 3	91578

"I wish you wouldn't stand in front of that blind, Johnson!"

Rating Courses:	NavPers Number
Mechanic 2	91579
Fire Control Technician 1, Vol. I	91331
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Mechanic, Chief	91581
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Metalsmith, Chief	91536
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Opticalmen 3, Vol. I	91387
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Parachute Rigger, Vol. I	91640
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Radarman 2	91267-1
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Rangefinders	91390
Ship's Servicemen 3	91446
Ship's Servicemen 2	91447
Ship's Serviceman 1	91448-1
Ship's Servicemen, Chief	91449-1
Ship's Servicemen Barber Handbook	91465
Ship's Serviceman Cobbler Handbook	91464
Ship's Servicemen Laundry Handbook	91466
Ship's Serviceman Tailor Handbook	91463-1
Sonarman 3, Vol. I	91259-1
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Steelworker, Chief	91591-1
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Steward 2	91693-1
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Submarine Periscopes	91392
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Surveyor 2	91564
Surveyor 1	91565
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Survival in the Water	91218-1
Telemen	91400
Torpedoman's Mate 3	91300
Torpedoman's Mate (E) 3	91301
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Torpedoman's Mate 1	91304
Torpedoman's Mate (E) 1	91305
Torpedoman's Mate, Chief	91306
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Utilities Man 3	91593
Utilities Man 2	91594
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Utilities Man, Chief	91596
Yeoman 3	91413-2
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Yeoman, Chief	91416-1

Long Time No See, But BMC Hears Call of the Beach

After 28 years of continuous sea duty, Chief Boatswain's Mate Walter J. Pozdol, USN, has decided to find out what this "shore duty" talk is about.

Pozdol recently reenlisted for six more years and received shore duty orders to the Fleet Sonar School, San Diego, Calif. This is the first time in his 28-year naval career he has been on shore duty. Enlisting in 1928, he first had sea duty on the old four piper, USS *Robert Smith* (DD 324). Since then, Pozdol has been at sea on a cruiser, an aircraft carrier, a destroyer tender and destroyer type ships. His latest sea duty was aboard USS *Rowan* (DD 782).

BMC Pozdol is a plankowner on the carrier USS *Hornet* (CV 8) and was aboard her when she was sunk in 1942. He has also been in the commissioning crew of five destroyers.

"A sailor's place is aboard ship," stated the veteran CPO, explaining his 28-year stint of sea duty. "But," he added, "this shore duty is the greatest."

Roundup on New Legislation of Interest to Naval Personnel

HERE ARE THE HIGHLIGHTS of the legislative action by the 84th Congress, second session, of interest to naval personnel.

This summary includes those bills which have been introduced, and those on which action has been taken. Future summaries will contain information concerning new items as well as changes in the status of bills reported or introduced.

Six-month Death Gratuity—H. R. 2005: Authorizes payment to persons standing in "loco parentis" to deceased servicemen. Passed by House.

Reserves—H. R. 2035 and S. 801: Allows credit toward retirement for certain services performed as NavCads, dieticians, physical therapists, etc. House Armed Services Committee hearing held.

Enlisted Personnel—H. R. 2106: Provides for non-termination of enlistment contracts or obligated service of persons appointed to a service academy. Passed by House.

Academy Service—H. R. 2213: Would authorize crediting for pay purposes of service as cadets and midshipmen. Introduced.

Officer Personnel Act—H. R. 4229 and S. 1441: An amendment to abolish fanning principle in assignment of running mates for Academy and NROTC graduates commissioned in or transferred to staff corps in grade of ensign. Passed by House.

Substandard Quarters—H. R. 5731 and S. 1947: Would permit occupancy on a rental basis without loss of quarters allowance. Referred to House Armed Services Committee.

Uniform Code of Military Justice—H. R. 6583 and S. 2133: Offers an amendment to authorize increased punishment by commanding officer, and procedural changes to eliminate wastage of time and manpower. House Armed Services Committee hearings now being held.

Survivor's Benefits—H. R. 7089: Relates the amount of benefits to earning rate of servicemen at time of death; provides for contributory participation in Social Security, terminates gratuitous indemnity coverage, and increases long-term payments to surviving widows. Passed by House.

Academy and NROTC Service—H. R. 7280: Would authorize crediting for pay purposes of service as cadets, midshipmen, and service in the ROTC, NROTC and AFROTC. Contains provisions (not in H. R. 2213) that service credit will only be given to persons who have completed four years or more of active service. Introduced.

"Don't touch that button, Jonesy. Jonesy, ... Jo-o-onesy . . . . . !!

Naval Reserve Officers—H. R. 7611: Would establish date of rank for pay purposes of some 2800 Reserves promoted during World War II under the Naval Reserve Act of 1938. Passed by House.

Enlisted Members of Navy and Marine Corps—H. R. 8407: Would permit making up time lost as result of misconduct by extending period of enlistment. Hearing held by House Armed Services Committee.

Women's Armed Service Integration Act H. R. 8477: Introduces an amendment to provide flexibility in distribution of women officers. Passed by House.

Retirement in Highest Grade—H. R. 8904 (formerly H. R. 8694): Would authorize advancement on retired list to highest temporary grade in which service was performed satisfactorily. Passed by House.

Retirement—H. R. 8904 and S. 2134: Provides for equalization of certain provisions applicable to military personnel. Passed by House.

Medical and Dental Officer Procurement (revised)—H. R. 9429 and S. 3122: Provides authority for hospitalization and medical care of dependents of members of uniformed services in either military or civilian facilities.

Dependent could elect which, but use of military would depend on extent of facilities and medical staff. Also, where the military facilities are adequate, the election may be limited by regulations to those facilities. Passed by House.

Nurses—H. R. 9838: Authorizes transfer to Medical Service Corps of Regular Navy. Passed by House.

Readjustment Pay for Reserves—H. R. 9952 and S. 2258: Provides for lump-sum payment to Reserve officers and enlisted personnel who are involuntarily separated from active duty after five or more continuous years of active duty. Reported favorably by the House Armed Services Committee.

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH is on page 11.

1. (b) Signalman.
2. (b) Bridge.
3. (a) SNJ *Texan*.
4. (c) Trainer.
5. (a) Specialists.
6. (c) E-4, E-5, and E-6.

Latest List of Motion Pictures Available for Distribution To Ships and Bases Overseas

Ships and overseas bases with equipment for showing CinemaScope movies have now begun to get these films in increasing numbers.

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., includes 10 movies in the new wide-screen process. The list is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are designated by (C) and those in CinemaScope are indicated by (CS). Distribution of the following films began in April.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and overseas activities. These films are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The plan and funds are under

the administration of the Chief of Naval Personnel.

The Spoilers (479) (C): Adventure Drama; Jeff Chandler, Anne Baxter.

Target Zero (480): War Drama; Richard Conte, Peggie Castle.

Rawhide Years (481) (C): Adventure Drama; Tony Curtis, Colleen Miller.

Ransom (482): Drama; Glenn Ford, Donna Reed.

Blood Alley (483) (C): Drama; John Wayne, Lauren Bacall.

The Trouble with Harry (484) (C): Comedy Drama; John Forsythe, Shirley McLean.

To Catch a Thief (485) (C): Romantic Adventure; Cary Grant, Grace Kelly.

The Court Jester (486) (C): Comedy Drama; Danny Kaye, Glynis Johns.

Artists and Models (487) (C): Musical Comedy; Dean Martin, Jerry Lewis.

It's a Dog's Life (488) (C): Drama; Jeff Richards, Jarma Lewis.

Flame of the Islands (489) (C): Adventure Drama; Yvonne de Carlo, Howard Duff.

Killer's Kiss (490): Drama; Frank Silvera, Irene Kane.

Invasion of the Body Snatchers (491): Drama; Kevin McCarthy, Dana Wynter.

Fort Yuma (492) (C): Drama: Peter Graves, Joan Taylor.

Rebel Without a Cause (493) (C): Drama; James Dean, Natalie Wood.

The Prisoner (494): Drama; Alec Guinness, Jack Hawkins.

A Lawless Street (495) (C): Western; Randolph Scott, Angela Lansbury.

King Dinosaur (496): Science Fiction; Bill Bryant, Wanda Curtin.

The Fast and the Furious (497): Drama; Dorothy Malone, John Ireland.

I Died a Thousand Times (498) (C): Drama; Jack Palance, Shelley Winters.

The last Frontier (499) (C): Western; Victor Mature, Anne Bancroft.

The Houston Story (500): Drama; Lee J. Cobb, Edward Arnold.

At Gunpoint (501) (C): Drama; Fred MacMurray, Dorothy Malone.

Beneath the Twelve Mile Reef (502) (C) (CS): Drama; Terry Moore, Robert Wagner.

World in My Corner (503): Drama; Audie Murphy, Barbara Rush.

Demetrius and the Gladiators (504) (C) (CS): Biblical Drama; Victor Mature, Susan Hayward.

Garden of Evil (505) (C) (CS): Drama; Gary Cooper, Susan Hayward.

Night People (506) (C) (CS): Drama; Gregory Peck, Broderick Crawford.

Prince Valiant (507) (C) (CS): Medieval Adventure; Robert Wagner, Janet Leigh.

Woman's World (508) (C) (CS): Romantic Comedy; Clifton Webb, Fred MacMurray.

How to Marry a Millionaire (509) (C) (CS): Romantic Comedy; Marilyn Monroe, Betty Grable.

River of No Return (510) (C) (CS): Adventure Drama; Marilyn Monroe, Robert Mitchum.

The Indestructible Man (511): Fantasy; Lon Chaney, Casey Adams.

Gentlemen Marry Brunettes (512) (C): Musical Comedy; Jane Russell, Jeanne Crain.

Red Sundown (513) (C): Adventure Drama; Rory Calhoun, Martha Hyer.

King of the Khyber Rifles (514) (C) (CS): Adventure Drama; Tyrone Power, Terry Moore.

Three Coins in the Fountain (515) (C) (CS): Romantic Comedy; Clifton Webb, Jean Peters.

I'll Cry Tomorrow (516) (C): Drama; Susan Hayward, Eddie Albert.

Teen-Age Crime Wave (517): Crime Melodrama; Tommy Cook, Mollie McCart.

Sincerely Yours (518) (C) Musical Drama; Liberace, Joanne Dru.

"Here are those letters you wanted filed, Chief!"

Emergency Service Ratings For Regular Navy Personnel

The trend toward further specialization in the New Navy is again demonstrated by the announcement that emergency service ratings will be used to identify Regular Navy personnel in pay grades E-2, E-3 and E-4.

The three letter abbreviations have earlier been used to identify the more specialized skills of Naval Reserve personnel and are now to be used as a further delineation of broad skills within the USN general service ratings. Electronics Technician (ET), for example, is a general service rating, but Electronics Technician (Communication) (ETN) is an emergency service rating with duties more narrowly defined. Regular Navy personnel will advance to the more broadly qualified general service rating at pay grade E-5 or higher.

Navymen who now hold a general service rating in pay grade E-4 (PO3) will continue in their general service rating. Eligible personnel in pay grade E-3 who are assigned an emergency service rating, may compete in August exams for advancement to E-4 in a specialized rating.

Qualified personnel in pay grades E-2 and E-3 may be assigned a striker idendification for an emergency service rating as follows: Electronics Technician (ET)—to either Electronics Technician (Communication) (ETN), Electronics Technician (Radar) (ETR), or Electronics Technician (Sonar) (ETS); Fire Control Technician (FT)—to either Fire Control Technician (Manually Controlled Systems) (FTM), Fire Control Technician (Underwater) (FTU), Fire Control Technician (Automatic Directors) (FTA), or Fire Control Technician (Integrated Systems) (FTL); Aviation Machinist's Mate (AD)—to either Aviation Machinist's Mate (reciprocating Engine Mechanic (ADR), or Aviation Machinist's mate (Turbo—jet engine mechanics) (ADJ); Air Controlman (AC) to Air Controlman (Early Warning) (ACW); and Photographer's Mate (PH)—to either Photographer's Mate (Cameraman) (PHG), or Photographer's Mate (Aerial Cameraman) (PHA). Details of the change may be found in BuPers Inst. 1223.1.

Third All-Navy Talent Contest Is Scheduled for August, Finals Will Be Held in N. Y.

The third annual All-Navy Talent Contest will be held this year on or about 16 August in New York City with ComThree as host. As in years past, certain selected acts from the All-Navy finals will be invited to appear before a nation-wide television audience on the Ed Sullivan Show on 26 Aug 1956.

The All-Navy Talent Contest, designed to discover, develop and encourage talent, is open to all naval personnel on active duty for more than 90 days. Personnel in the Coast Guard and Marine Corps are also eligible and invited to enter this contest. The preliminary area eliminations in the talent contest will also give ships, stations and areas the opportunity to furnish entertainment on the local level.

The rules for this contest are practically the same as those of last year. The only major change has been in the area of competition in the Pacific. This year, area finals competition will be hosted by ComNavFe for personnel in the Far East, including the Marianas and the Philippines. For the central Pacific, ComFourteen will be host for entrants from the Hawaiian area.

It doesn't make any difference if your status is amateur or professional. Winning acts will be selected on the basis of originality, showmanship, technical excellence and audience appeal.

Each performer or group of performers should present an entertaining act which is in good taste. Groups will consist of not more than four performers and no single act should exceed five minutes.

The areas in which competitions may be held are as follows:

ComThree—Host for the 1st, 3rd and 4th Naval Districts.

ComFive—Host for the 5th Naval-District, PRNC and SRNC.

ComSix—Host for the 6th, 8th, 10th and 15th Naval Districts.

ComEleven—Host for the 11th Naval District.

ComTwelve—Host for the 12th Naval District.

ComThirteen—Host for the 13th and 17th Naval Districts.

ComFourteen—Host for the Hawaiian Area.

ComNavFe—Host for the Far East, including Marianas and Philippines.

CinCLanFlt—Host for the Atlantic Ocean Area, including CinCNELM.

Each of these areas will select first, second and third place winners plus two alternate acts. This list of five selected acts from each area will be submitted to the Chief of Naval Personnel who will then select certain acts to travel to New York City to compete in the All-Navy Talent Contest.

It should be noted, and emphasized to each contestant, that ONLY the winning act in each area will be *assured* of an invitation to participate in the All-Navy Finals to be held in New York City.

At the All-Navy finals competition, acts will be selected for further screening for possible appearance on the Ed Sullivan Television Show. Selected acts will probably go on a three-week recruiting tour after the TV show.

Each member of the first three winning acts in the All-Navy finals competition will be awarded a trophy furnished by the Chief of Naval Personnel.

Details on this year's All-Navy Talent Contest may be found in BuPers Notice 1700 of May 1956.

Openings for Junior Officers In Submarine School Course Beginning January '57

Applications from officers of the line, USN and USNR, in the grade of ensign and lieutenant (junior grade) who are now on active duty are desired for the Submarine School class convening in New London, Conn., during the first week in January 1957.

Applications for the course convening in January 1957 are desired from officers in the grade of lieutenant (junior grade) whose date of rank is on or after 1 Jan 1954, and ensigns with date of rank before 1 Jan 1956. Applications should

Serenade of the Ship's Bells

The Naval Training Center at San Diego, Calif., has a "ship's bell" that can play hymns at the flick of a switch.

Every half hour from 0700 to 2200 the bell automatically tolls off the time in traditional seagoing style, but twice a day on Sundays or on special occasions it becomes a carillon, chiming out familiar hymns or sounding the call to worship.

It's all done with a set-up that combines 25 small bells with the principles of ultra-modern electronics and the old-fashioned player piano. Four loudspeakers, atop the Training Center's North Chapel, carry the music of the bells to all corners of the 178-acre station. "We don't know of any other place in the country where church bells are used as a ship's bell," says LT M. D. Seiders, CHC, USN, chaplain of the North Chapel, "although there are other naval stations with the same kind of bells."

The chimes reproduce tones in a wide range, without need of belfry or heavy cast bronze bells. Instead, miniature bells weighing only a few ounces and measuring only a few inches in diameter are struck by small hammers. The sound is amplified by an elaborate electronic system.

A compact steel cabinet weighing about 200 pounds (a set of 25 cast bronze bells would weigh more than 37 tons) houses the chimes and the electronic system which reproduces their sound. An accompanying roll player, similar to those on old-time player pianos, makes it possible to play various hymns automatically. Both units fit easily into the corner of a chapel closet.

The carillon may be played manually from an 18-inch keyboard by the chapel organist before church services and on special occasions. During the Christmas and Easter seasons, and when ranking civilian or military dignitaries visit the Training Center, selected musical programs are played on the bells. Chapel funds and the Training Center's Special Services Department provided the money for the purchase.

The ship's bell chimes are popular with both the Navymen and local residents. People in the nearby Porta Loma area have written or phoned the naval station again and again to express their appreciation for "the serenade of the bells."

reach the Chief of Naval Personnel not later than 1 Sep 1956, using the form prescribed in BuPers Inst. 1520.6G.

Officers selected for this training will be ordered to the Submarine School for approximately six months and upon successful completion of the course will be assigned to duty aboard a submarine which will normally operate in an area such as New London, Norfolk, Key West, San Diego or Honolulu. Selection is made on the basis of fitness reports and educational background.

While attending Submarine School, incentive (submarine) pay is paid for the days underway in a submarine and upon reporting to a submarine after graduation, continuous incentive pay is received. A BOQ for single officers and approximately 60 apartments for married students are available within walking distance of the school. Assignment of apartments is made with preference to students with children.

BuPers Inst. 1520.6G also contains the following information:

- All officers should be qualified to stand OOD watches underway before they report to Submarine School.
- A physical examination report (Standard Form 88) must be forwarded with letter of application.
- The time spent in training at the Submarine School will not count toward fulfillment of your obligated service if you are dropped from the school at your own request.
- If you apply and fail of selection, you will not be considered automatically for the next class. Separate applications are required.

The BuPers Notice which will be issued semi-annually in April and October will announce, by dates of rank, those eligible to apply for the next succeeding class and will also contain a list of officers for the next scheduled class.

You must meet these require-

- Completion of at least one year of active commissioned service as of the first day of the month in which the class convenes.
- Must be physically qualified for submarine duty as established by Article 15-29, *BuMed Manual.*

Application should be forwarded by COs to the Chief of Naval Personnel (Attn: Pers B1125).

WAY BACK WHEN

River Boat Navy

The Navy begon building steamships in the 1830s, and had them in widespread use by the time of the Civil Wor. There was however, no full canversion from sail ta steam until the 1880s. Steam prapulsian affered many advantoges, one being greater maneuverability.

Naval strategists also found that the steam-prapelled ships were most effective battering rams.

Inland river cambat demanded especially maneuverable ships. In 1862 the Navy launched USS *Indianala*, designed specifically far river use. She was a waoden-hulled, iron-clad gunboat with twin screws and two side paddle wheels. Each screw and paddle wheel was aperated by an independent engine ta give pinpaint turning prapulsion. She weighed 511 tans, was flat bottamed, drew anly five feet of water and had a maximum speed of six knots. Her fire pawer was a battery of two 11-inch and two 9-inch Dahlgren guns.

On 24 Feb 1863, shortly after dark, *Indianola* was proceeding up the Mississippi River in the vicinity of Vicksburg, Miss., with a coal barge lashed to her port ond starbaard sides. Saan it was discovered that two Canfederate steamers were in hat pursuit and preparing ta attack.

Queen of the West led the other Confederate vessel. At full speed she aimed ta ram *Indianala* abaft the port-side paddle wheel. *Indianola's* engines were reversed and her helm given a quick turn. Queen af the West missed her target but rammed the port caal barge.

Heading down stream ta get away from Queen, *Indianala* was canfronted by the other Confederate steamer, "cattan-clad" Webb. Churning upriver under a full head of steam, Webb rammed *Indianola* head an while all hands were cutting loose the sinking coal barge.

Indianola was nat seriausly damaged, but Webb's baw was crushed inboard about eight feet.

She didn't sink, however, because her bow was stuffed with cottan and ather buoyant material.

Indianola turned about again and headed upstream, anly to find Queen fully recavered from her affray with the caal barge, and eager ta resume the jausting.

At the brink of baw-to-bow impact, *Indianala* quickly changed course. Queen af the West struck only a glancing blow to the stern. Some shots were exchanged, and one of *Indianala's* crew was killed and one wounded. The Canfederate had twa killed and three wounded.

Catching her aff balance, Queen af the West next turned and rammed *Indianala's* starboard paddle wheel, immabilizing it. About the same time, Webb jobbed her crumpled bow into *Indionola's* part side. The impact was so severe that *Indionola* began to take on water at an alarming rate.

Shifty *Indianola* had, up to this paint successfully evaded the thrusts af her two adversaries.

But the odds were naw taa greot. There were now faur against one. Two additianal Canfederate cattan-clads, Grond Era and Dr. Beatty, had come on the scene. Dr. Beatty was standing by as safety man, ready to enter the fight when oppartunity offered.

Indianola's skipper, Lieutenant Commander George Brawn, was forced ta run her aground on the west bank of the river after surrendering to the cammanding officer af Dr. Beatty.

The next day the Confederates towed the punctured gunboat to the other side of the river where she sank.

As the Confederates were trying to raise *Indionola*, the Federal forces abave Vicksburg made a dummy monitor from a caal barge. Mud furnaces were built under empty pork barrels which served as smokestacks.

They built fires in the mud furnaces which sent huge black clauds of smake up the "porkbarrel" smakestacks, and then sent her dawn stream.

About twa and ane-half miles abave *Indianala's* salvage operation, the dummy ran aground.

Seeing this "terrible laaking monitor," and not realizing that she had run aground, the Confederates damaged *Indionola* as much as possible, then fled. *Indianola* was later raised by the Federal Navy and towed ta Maund City, Ill., where she remained far the rest of the war.

Navy Relief Society, A Friend in Need

In spite of the 1955 military pay raise and a 10 per cent reduction in Navy and Marine Corps personnel, the work load of the Navy Relief Society was decreased by only three per cent. This situation, and other relevant facts concerning the operation of the Society have been explained to its members in the annual 1955 report of the Executive Vice President, VADM V. R. Murphy, USN (Ret.). Here are highlights of the report:

Service cases amounted to 49,480. These involved no direct expenditure of funds but did require a great deal of time and effort on the part of the Navy Relief Society staff. The cases consisted of advice, information and help in family and personal problems. In this type of assistance, NRS made an important contribution to the security and peace of mind of families as well as to service morale.

On the financial side, outright grants and conversions to grants were made in 6745 cases, for a total of $498,259. Despite the drop in over-all financial assistance previously mentioned, this total was some $48,000 higher than last year.

Many of these cases involved the dependents of deceased personnel. When a casualty report is received from the Bureau of Naval Personnel, the Society immediately gets in touch with the surviving dependent and, where necessary, provides assistance while government benefits are being processed and no other income is being received. Assistance to these dependents is also available for emergency or other extraordinary needs.

Emergency assistance in the form of loans was provided in 55,758 cases, for a total of $3,662,431.

Repayment of loans for the year 1955 amounted to $3,416,393—that is, 93 per cent of the loans made. This is a marked increase over previous years.

During the year, $208,234 in loans were written off as uncollectible in 4304 cases. This is a decrease from last year. (These "uncollectibles" are, for the most part, the unpaid balances of men discharged who failed to repay them after return to civil life.)

The total expenditures, other than for financial assistance, including expenses for Headquarters and all Auxiliaries, came to $654,857. This is an increase of some $88,000 over last year. Of this over-all figure, however, only $295,804 represents administrative overhead. The remainder is made up of the salaries and expenses of visiting nurses, social workers, attendants at children's waiting rooms at dispensaries and commissaries, the cost of layette material (the layettes themselves are made by volunteer workers), the costs of running Thrift Shops and "relief in kind."

The support of the Society, both by the service itself and civilian friends during 1955, continued to be very satisfactory. Total contributions for the year, including the "Annual Call for Contributions," the proceeds of balls, carnivals, sporting events and similar special fund-raising projects came to $1,091,898. This is approximately the same as for 1954 and is the fourth consecutive year in which the total of $1,000,000 has been reached or exceeded.

In addition to the contributions received from ships and shore stations, some $75,000 was received from other sources. These range all the way from small individual donations—several of them from anonymous donors which are received regularly each year—to rather large ones from detached units and special benefits conducted by civilian organizations.

The Auxiliaries are the real working agencies of the Society. The great majority of the cases are handled by them. The problems presented to them are many and varied, requiring patience and tolerance as well as discriminating judgment in their solution. The performance of these Auxiliaries continues to be of a high order.

The Naval Relief Society report expressed appreciation of the fine work being carried on by Auxiliary personnel—officers, employed staff and volunteers. Both the Society and the naval service owe a continuing and heavy debt, the report stated.

The volunteers devote a large part of their time to NRS affairs (some of them employ baby-sitters for their own children while they work in the office).

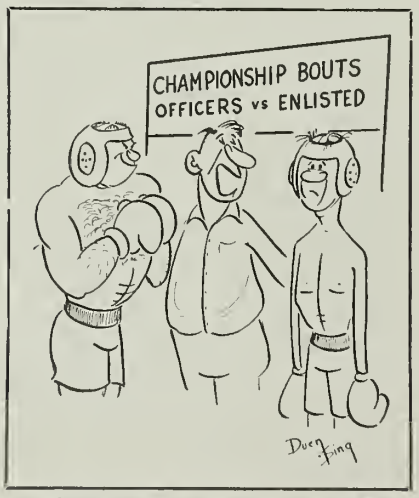
The board of managers made one important change in policy during the year. This was with respect to the extent of assistance that could be provided in connection with expenses for funerals of dependents. In an effort to provide appropriate assistance in these very real emergencies but at the same time avoid the use of Society funds as a means of financing excessive funeral expenses, a survey of funeral costs throughout the United States was made. It was found that a modest, properly conducted funeral could be obtained at a cost of from $250 to $400.

Accordingly, the previous policy, which put a limit of $250 on such assistance, of which only $150 could be gratuitous, was changed to provide that the Society could participate in the extent of reasonable and appropriate funeral costs not to exceed the sum of $400.

It was further provided that this aid might be by loan, gratuity or combination, depending, as with assistance for other necessities, on ability to make repayment without undue hardship.

Relief of distress cannot be measured in terms of financial aid alone. The Naval Relief Society's annual report demonstrates that staff workers and volunteers have furthered the reputation of the Society in its program of assistance for Navy families.

All-Navy Cartoon Contest—
W. P. Duensing, HM1, USN.



"... Shake hands now and come out fighting. And Seaman Zuck is hereby reminded of the penalty for striking an officer!!!

Plane Talk about USN Aircraft Designations

Here's a key to understanding the identification system for aircraft used by the U.S. Navy. The system uses letters to define the mission and to identify the manufacturer of the aircraft, and numbers to indicate the model and modifications of the model.

The need for this system is obvious. Instead of identifying the *Cutlass* as a swept-wing, tailless, single-seat, twin-jet aircraft used by the Navy as an interceptor fighter, it is simply designated as model F7U-1.

The first letter of the designator indicates the mission of the aircraft. Fixed-wing aircraft are identified by the following class letters:

- **A** *Attack*
- **F** *Fighter*
- **O** *Observation*
- **P** *Patrol*
- **R** *Transport*
- **S** *Anti-Submarine*
- **T** *Trainer*
- **U** *Utility*
- **W** *Warning*

Helicopters are designated by the type letter "H." Whirlybirds with special functions are identified thus:

- **HC** *Cargo*
- **HH** *Search and Rescue*
- **HO** *Observation*
- **HR** *Transport*
- **HS** *Anti-submarine*
- **HT** *Training*
- **HU** *Utility*
- **HW** *Warning*
- **RO** *Rotorcycles used for Observation*

Getting back to the *Cutlass*, the F in its designator F7U-1 stands for fighter. The next two symbols 7 and U are read together. The letter U stands for Chance Vought Aircraft, Inc., the manufacturer, and the numeral 7 means that this is the seventh entirely new Navy fighter design manufactured by this company. The numeral "1" after the letter indicates the first model of the basic design; succeeding numerals indicate first modification, second modification, etc. The second modification of the *Cutlass* design would be designated F7U-3.

Here's a list of the letters assigned to current contractors of U.S. Navy airplanes and helicopters:

- **B** Beech Aircraft Corp.
- **D** Douglas Aircraft Co., Inc.
- **E** Cessna Aircraft Co., Inc; Hiller Helicopters, Inc.
- **F** Grumman Aircraft Engineering Corp.
- **H** McDonnell Aircraft Corp.
- **J** North American Aviation, Inc.
- **K** Kaman Aircraft Corp.
- **L** Bell Aircraft Corp.
- **M** Glen L. Martin Co.
- **P** Piasecki Helicopter Corp.
- **Q** Fairchild Engine and Airplane Corp. (Aircraft Div.)
- **S** Sikorsky Aircraft (United Aircraft Corp.)
- **U** Chance Vought Aircraft, Inc.
- **V** Lockheed Aircraft Corp.
- **Y** Convair Division, General Dynamics Corp.

Aircraft development for additional or special missions continues after a particular model has been accepted and put into service by the Navy. When an aircraft is modified a suffix is added to the basic designator. Thus the photographic version of the *Cutlass* would be designated model F7U-1P. The photographic reconnaissance version of the *Grumman* F9F-5 airplane would be designated F9F-5P.

Following is a list of suffix letters which indicate special modifications or specially equipped versions of otherwise standard aircraft:

- **A** Amphibian
- **B** Special Armament
- **C** Carrier conversion of non-carrier type
- **D** Drone (Target) Control
- **E** Special Electronic Gear
- **F** Special Power Plant Installation
- **J** Special Weather
- **K** Target (Controlled)
- **L** Winterized
- **M** Guided Missile Carrier
- **N** All Weather Operating
- **P** Photographic
- **Q** Countermeasures Aircraft
- **R** Transport
- **S** Submarine Search and Attack
- **T** Training
- **U** Utility
- **W** Airborne Early Warning
- **Z** Administrative

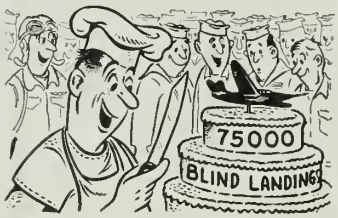
Now that you've mastered the system, we'll throw a wet seabag into the works. In 1952 it was announced that any aircraft ordered by both the Air Force and the Navy will retain the basic designation allotted by the first service to order it. The first example of this is provided by the North American trainer originally ordered by the Air Force as the T-28A. Later adopted by the Navy, the naval version carries the designation T-28B.

Aircraft popular names such as *"Cutlass," "Skyraider,"* etc., are recommended by the manufacturer. The Navy makes sure that the name is not used by another service, and that it is otherwise acceptable, before it becomes official.

HERE'S YOUR NAVY

Not long ago, Moffett Field's GCA unit cut a cake in celebration of its 75,000th blind landing. This places the California Naval Air Station within sighting distance of NAAS Kingsville, Tex., which leads the Navy with more than 90,000 GCAs.

GCA stands for "Ground Controlled



Approach." It is the control of aircraft while landing, through instructions received from a ground-operated facility.

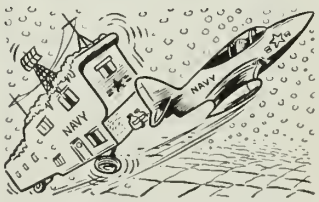
Its basic purpose is to aid the safe approach and landing of aircraft during unfavorable weather conditions.

To do this, radar and radio communications are used. All of the necessary radar equipment is located within

trailers located in the middle of the airfield.

Regardless of the weather, aircraft aloft can be detected, identified and directed to an approach and landing. The aircraft needs no special equipment other than its standard set of flight instruments and normal radio equipment.

Qualified air controlmen, housed in



the trailers, interpret the signals on their radar scopes and through radio communication with the pilot, direct him throughout the approach and landing.

From the pilot's point of view, the Ground Control Approach units deserve all the cake they get.

BOOKS

THIS MONTH'S SELECTION WILL PLEASE ALL HANDS

THE BUREAU OF NAVAL PERSONNEL'S Library Services Branch has done well by you this month in its selection of books. You'll find copies of these, and many other new titles as you pick and choose at your ship or station library.

Three have a distinctly nautical flavor. In ***Deliver Us From Evil,*** LT Thomas A. Dooley (MC), USNR, has put down his personal professional experiences in the refugee camps through which over 600,000 people made the "Passage to Freedom," from Communist-held Northern Veitnam en route to Saigon. LT Dooley combines his description of the state of the refugees with a description of the total situation. With the Haiphong area gradually reduced in personnel until by treaty arrangement it was to become Communist territory, the doctor and his staff (eventually reduced to one enlisted man) found increasing difficulties.

The young lieutenant was impressed with the nobility of his charges and tells of many brave flights to freedom. He believes that the action of the Navy, of which Dooley's task was only a part, was invaluable public relations.

Going back in time a few years, ***Zoomies, Subs and Zeros,*** by VADM Charles A. Lockwood, USN (Ret.) and Col. Hans Christian Adamson, USAF (Ret.) is told in an entirely different spirit. They relate the story of the U. S. Navy submarines in the Pacific which not only attacked enemy ships but also were part of a skillfully organized rescue operation—the Submarine Lifeguard League—which fished hundreds of airmen from the sea, men who were otherwise doomed by strafing, sharks, or tropical sun.

There was, for example, the incident in which USS *Harder* (SS 257) rescued a downed and injured aviator from USS *Bunker Hill* (CV 17) while the sub's skipper had to keep the bow of his boat pinpointed on a reef and volunteers took a rubber raft through the breakers and enemy sniper bullets.

The authors know whereof they speak. Admiral Lockwood is the man who organized and directed the Lifeguard League as ComSubPac under FADM Chester W. Nimitz, USN, and Col. Adamson was one of the men rescued.

The other nautical volume goes still further back in time. ***Mr. Lincoln's Admirals,*** by C. E. Macartney, deals with the Union Navy and the men who made it. Dr. Macartney gives credit to these leaders for a major contribution to winning the Civil War, and uses the entire period to lend strength, if it be needed, to the theories propounded in Mahan's *Influence of Sea Power on History.*

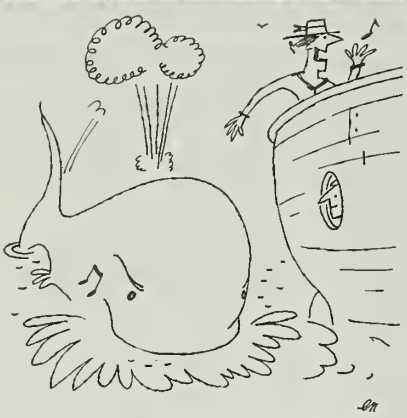
He tells how Confederate waterways were blockaded, cotton shipments cut to a minimum, military supplies diverted, ports destroyed or captured and defense softened up for land victories. He describes the work of men whose names are familiar in naval history—Dupont, Dahlgren, Porter, Farragut, Winslow and many others, and he does not neglect SecNav Gideon Welles and his assistant Fox who, between them, built up a fleet from 100 to 600 ships. The book is rich in anecdotes of improvisation, gallantry and daring.

Continuing the trend which considers a war—any war—from the viewpoint of the vanquished is ***Gray Fox,*** by Burke Davis, who describes the career of Robert E. Lee and his role in the Civil War. Mr. Davis supports the thesis that Lee, in spite of his very real genius, was destined to disaster. The army placed under him had no arms, shoes nor supplies. His generals were neither loyal nor obedient and Lee found himself unable to remove them. His plans were often frustrated by armchair strategists at Richmond. Vital strategic plans fell into the wrong hands; sickness and death in Lee's own family matched his grief at the death of Jackson. A moving picture of the tragedy of a great man.

Present-day problems too much for you? An ideal form of escapist literature is ***The Mountains of Pharoahs,*** by Leonard Cottrell. It's really a history of archeological development. He begins with an imaginative visit to the pyramids in the seventh century, B. C. By then the Egyptians were already an ancient people and the pyramids merely large objects for which no one could provide an answer. From there, Cottrell introduces the reader to Herodotus and thence to later observers and explorers up to the sun boat and the buried pyramids of Sekem Khet. Mr. Cottrell not only knows how to dig (he writes of the later discoveries from his own observations) but also how to write.

A number of excellent offerings are available in the fiction field. In ***Imperial Woman,*** Pearl Buck tells again the story of the Empress Dowager of China, one of the world's most powerful and terrifying figures of historically recent times. She is depicted in this long biographical novel as ambitious, beautiful and intelligent far beyond her time, but with a lust for power.

SONGS OF THE SEA



Blow, Ye Winds High-O!

'Tis advertised in Boston, New York and Buffalo,
Five hundred brave Americans, a whaling for to go.
Singing:
Blow, ye winds in the morning, Blow, ye winds, high-o!
Clear away your running gear, Blow, ye winds, high-o!
They send you to New Bedford, that famous whaling port,
And give you to some land-sharks to board and fit you out.
It's now we're out to sea, my boys, the wind comes on to blow;
One half the watch is sick on deck, the other half below.
The Skipper's on the quarterdeck a-squinting at the sails,
When up aloft the lookout sights a school of whales.
"Now clear away the boats, my boys, and after him we'll travel,
But if you get too near his fluke, he'll kick you to the devil!"

JOURNAL OF A CONFEDERATE MIDSHIPMAN

Glory and much needed supplies awaited the bold Confederate ships able to slip through the ever-tightening grip of Union blockaders guarding the approaches to the harbors of the South. But the problem of escape became daily more difficult.

Here's how the U. S. Navy of the Civil War era appeared to a young Confederate midshipman on board CSS Chickamauga *as this vessel attempted to break free of the harbor of Wilmington, N. C., for a brief career as raider, and of his role in the battle of Fort Fisher.*

I REPORTED ON BOARD the CSS *Chickamauga* on the 17th of Sept 1864, having left Richmond on the 14th inst.

SEPT 24

Lieutenant Commanding Jno Wilkinson and LT F. M. Roby, CSN, have returned from Richmond, where they have been in business connected with the ship, and I am heartily glad of it, for now perhaps we may see some energy displayed in getting our vessel ready. Got on board the carriage and gun (100 pdr Parrott) for the forecastle, hope to get coal this evening. The blockade runners are loud in their complaints against us (confound an Englishman anyway) for by order of the Govt they have to give us each a day's coal. They hope we will be captured I have no doubt. From present indications I think we will be away from here in two or three days. I fervently hope so. A small sized master's mate, named Gibson, from Richmond, reported this morning. There is already a crowd in our steerage. Captain Jno N. Moffit, CSN, came on board in a visit this morning.

SEPT 25

This morning Paymaster's Clerk Bain reported for duty. He is an old shipmate of mine, on board *Patrick Henry*.

Went on board *Tallahassee*. She is ready for sea with the exception of her coal; her officers are all very pleasant with one exception and his name I will not mention. Last night received a long looked for letter from my mother, enclosing one from my sister. The blockade running steamer *Wild Rover* has come over to us and is giving us her tithe of coal. Work is going on board ship quite briskly. We will probably get away from here (that is, the wharf) by Tuesday. I met Captain Pegram on shore today; he is the same kind and pleasant gentleman he always was.

SEPT 26

Made preparations for leaving the Navy Yard and at 12 m. hauled across the river and made fast to the wharf above *Tallahassee*. The men were immediately put to work on the coal. We get very indifferent coal here; it is this stuff from North Carolina. We will take 100 tons of it, also some from the blockade runners.

SEPT 27

The crew were employed all last night in getting in coal. Ship still laying at wharf taking in coal and water.

From *Journal* of Midshipman Clarence Cary, CSN, 24 Sep 1864 to 18 Mar 1865, Naval Records Collection, made available through the courtesy of the Navy Section, National Archives, Washington, D. C.

JOURNAL OF A CONFEDERATE MIDSHIPMAN

SEPT 29

I went last night to see "Fanchon the Cricket," at the theatre, was very much pleased with Ida Vernons, and indeed almost all the others' performance. Mortain sang the very amusing song of "Billy Barlow." This morning I kept the forenoon watch and had to take charge of the forecastle when we hauled out in the stream, but anything is preferable to being tied up to the wharf. I am beastly tired of Wilmington.

There is no encouraging prospect for us to get out, as the steamer *Lynx* was struck eight times, while running out the other night, and had to be beached to save her from sinking. But we will get out clear, I have no doubt.

The captain's clerk and another master's mate have reported for duty, making in all, 15 in the steerage mess. We can seat at the table at one time six persons. Oh, how I long to be at sea once more!

SEPT 30

Last night was thought very favorable for running the blockade and a steamer tried coming in but was much cut up and had to be beached. I have not heard her name. *Wild Rover* is supposed to have gone out without being hurt. The steamer *Lady Stirling* which came in a night or two ago has come up to the city, we will get coal from her today. This is our last day in Wilmington, I am pretty certain, at least for some time. We will go down to Smithville to watch our chance tomorrow, and I hope that chance will come tomorrow night.

Last night, while I was keeping the mid watch I heard firing off the bar, very distinctly.

OCT 1

Last evening we hauled alongside *Lady Stirling* and commenced taking coal—took about 40 tons. The men were allowed some money yesterday evening and with it liberty to go on shore.

At 11:30 this morning, we got underway and stood down the river, *Tallahassee* cheering as we passed. At 12:40 pm we have anchored in "Five Fathom Hole" with the port anchor and 15 fathoms of chain. *Falcon* and *Owl* are lying near us—they will go out tonight. About 5:00 pm we got underway and stood down the river toward Smithville which is about five miles off but upon striking on a bar about half way, we determined to wait for the next tide, and accordingly backed off and came to an anchor.

We will not go out tonight I am very sorry to say, but I hope and believe we will tomorrow. I went aloft this evening and saw seven blockading vessels off New Inlet—could not see down the Old Inlet.

OCT 3

The steamer *Talisman* from Bermuda came in last night without being fired upon. *Owl* went out and had nine shots fired at her. It looks pretty (when you are inside) to see the rockets, calcium lights and flashes of guns over the bar at night, whenever a vessel is discovered running out or in. The Yankees know perfectly well that we are waiting to go out, as we are in sight from their mastheads and then we fired a shot from each gun this morning, but *n'importe,* we will go out for all that. I wrote my farewell letter to my mother and sister last night, and Heaven knows when I will hear from them, or they from me again. I trust before long .

OCT 4

Last night at about half past eight we got up steam, got underway and stood down to the Western Bar, on Old Inlet, with the intention of going out if possible, but the night was unfortunately too light and we had to return. We went out about five or six miles and when we were preparing to go over the outer bar, we sighted three Yanks laying right in the channel where we had to go, and as going on was impossible, we had to turn back. We would have gone on but for the brightness of the night. Captain Wilkinson will not go tonight as the weather will be as clear as before, but tomorrow the springtide will give us enough to go over the rip at New Inlet and we will probably go out that way. The steamer *Banshee No. 2* came in New Inlet last night and had but two shots fired at her; she was from Bermuda and will be quarantined for 30 days. I was almost certain that we were bound for sea last night, and was bitterly disappointed to find that we were to come back and wait for another chance. I am afraid we will have to wait for the next dark night and that will be about 15 days.

OCT 5

Last night was as bright as the preceding one and of course we could not go out. *Falcon* and *Helen* both got up steam to go but failed. During my watch last night, there was some musketry firing down at Caswell and the Long Roll was beaten all around. We immediately prepared to meet an attack but it turned out to be a false alarm. There is but one way open for us now, as there is not water enough in the Rip at New Inlet, and that is this bar which is well blockaded. There were 11 off here today. Oh! how glad I would be to exchange this dull, quiet harbor for the rolling, dashing sea. I am ashamed to write another farewell letter home as I have said "Goodbye" so often. No chance for us tonight.

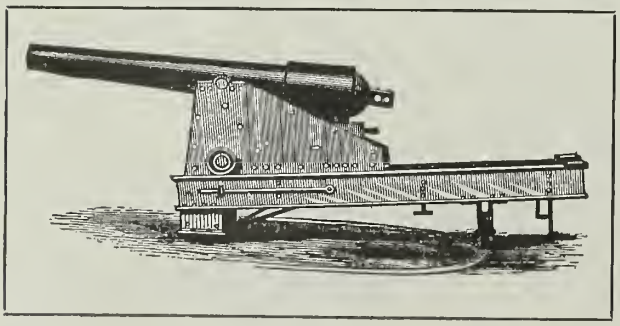
OCT 7

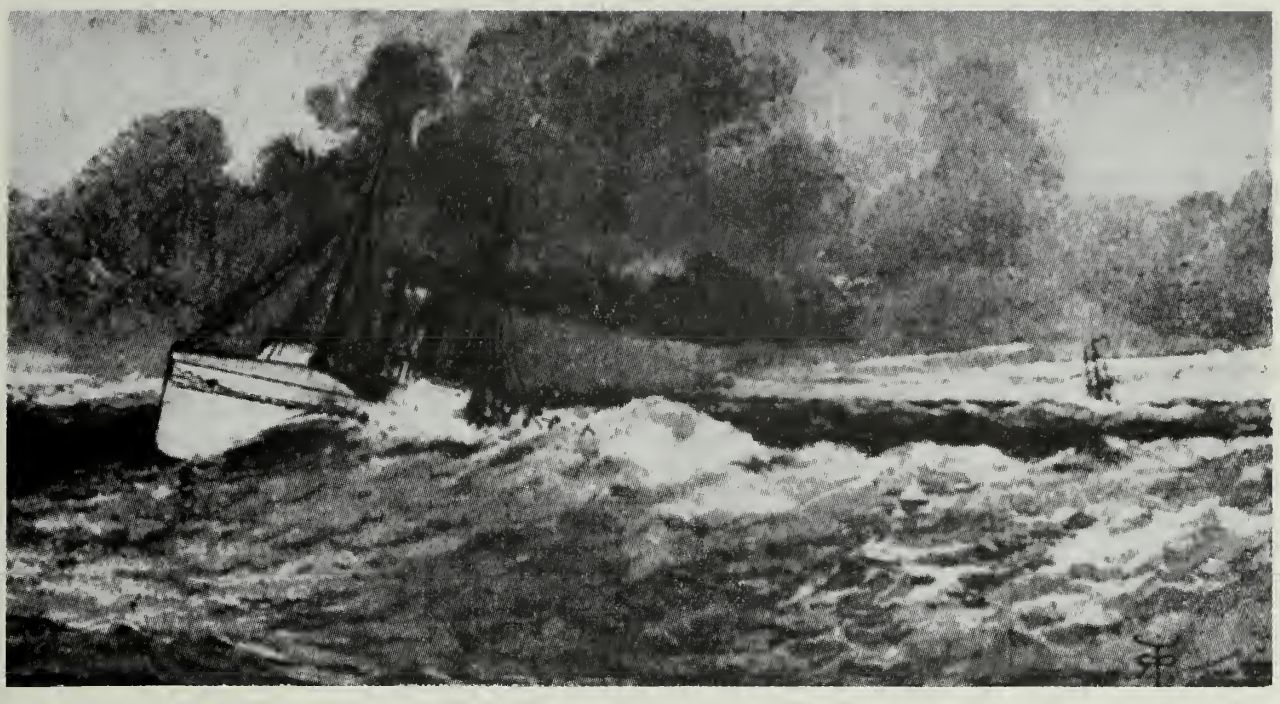
Last night being dark enough, the Captain determined to go out if possible, so we got underway at 9:30 pm, and proceeded down to the Rip, upon which we grounded. After some trouble, we succeeded in backing off. We tried again and again but with ill success, and finally we had to go back to our old anchorage. I was never more provoked in my life than I was last night at our bad luck. That was the first good dark night we have had for a week. Our ship draws too much water to go out unless we have the spring tides in our favor. We will be here for about three weeks, I'm afraid.

OCT 28

We will go out tonight if there is sufficient water in the Rip. Left *Tallahassee* at New Inlet. At 5 pm got

MUZZLE-LOADERS like this 100-pound Parrott gun were used by defenders of Fort Fisher to repel Union forces.





BREAKING THROUGH—The Confederate steamer *Banshee* evades Union ship as it breaks through the blockade.

underway and proceeded down to the Rip which after one unsuccessful attempt we crossed with little difficulty. An hour later crossed the bar and through the Yankee fleet we sighted [blank] vessels, one of which threw up rockets and gave chase, also firing her guns. She fired 12 shots at us, all of which were too high, but were pretty good line shots. It was so rough on the Bar that they could not fire with any accuracy. As soon as the Yankee gave chase, we shifted some of the coal from the fore hold and trimmed the ship in that way. I have had a very disagreeable time tonight as I have been wet by the sea through and through. The ship has been running very well. We dropped the Yankee at about 8 p.m.

Oct 29

After we got clear of the blockade, we steered E½N, for some hours with ship averaging about 10 knots. Between 3 and 4 am, sighted a sail in starbd quarter, but she did not see us. We soon dropped her. Set a part of the mid watch. Very tired and wet, but have fortunately escaped seasickness. At 9:25 sighted a sail right ahead which was made out to be a brig standing on the same course we were. Everybody was talking about the prize, but a half hour later, a Yankee steamer hove in sight near the brig and we had to alter our course and be running away instead of after. She followed us and tried pretty hard to catch us, but we had the heels of her and ran out of sight in about three hours. During the night, passed a ship and two schooners—did not molest any of them but kept on our course.

Oct 30

We are still standing to the Nd. The weather is getting cool. This morning about 6 am sighted a schooner. We changed our course and stood for her. She proved to be the *Alladin* from Cornwallis under English colors. Stood on our course and at 11 am sighted a sail right ahead which we chased and overhauled. She was the bark *Mark L. Potter* of Bangor, Me., bound to Key West with a cargo of lime, bricks and lumber. Took on board the officers and crew (13 in all) and set fire to her. At 4 pm, stood off in our course. Got plenty of good provisions off the prize and many valuable articles for ships use. Also took five boats, three of which are very pretty little dinghys. Threw overboard one of our own old boats.

Oct 31

About 10 am sighted a sail dead ahead and gave chase. About 10:30 came alongside of her and hove her to. She proved to be the barque *Emily L. Hall* of New York. She was from Cardenas, Cuba, bound to New York with a cargo of sugar and molasses. This ship we burnt and stood on in chase of a ship which turned out to be *Shooting Star* from New York. She was bound to Havana with a cargo of coal (1500 tons). While alongside of her, another sail hove in sight. We stood for her and hove her to. She was the barque *Albion Lincoln* from Maine with a cargo of lumber. The former [ship] we burnt and the latter we bonded for $18,000. To her we transferred all the prisoners, about 40 in number, after giving them their paroles. A fine ship passed to windward of us, but as we were too busy to notice her, she got away. Wind blowing very hard, and this vessel pitches accordingly.

Nov 3

Passed two sails a long way off. Weather threatening and indications of a gale.

Nov 4

At 6:30 am made sail on the port quarter, started ahead, ran her out of sight and slowed down. At 11:15 she came in sight again. By night blowing a gale.

Last night we lost our port forward boat—it was carried away by the sea. Gale blowing harder. At night set sail to steady the ship, which labors a little less, but the sea is very heavy.

Nov 6

Gale abated, but sea still heavy. Altered our course

and stood for Bermuda. [*After repairs and coaling at Bermuda* Chickamauga *returned to Wilmington, although the reason is not given.*]

Nov 18

Saw two sails during the day, one of which was a steamer. We changed our course twice to avoid the latter. He did not see us fortunately and we stood on for the land, hoping to be able to reach the bar (New Inlet) before 10 pm, that is, before the moon rose. We did not calculate well however, for at 10, we were not on soundings. About 11 pm, we saw breakers ahead and had to back both engines to get clear of them. Then we saw houses on the beach and two wrecks which everybody declared to be those at New Inlet. All hands were congratulating one another about how we had run the block without seeing anything, but after signalizing and getting no answer, the talk began to change. We sent a boat into the beach and the pilot soon came back and said he did not recognize the coast at all. The captain then took the ship himself and stood to the south and east.

Nov 19

At 5:30 am found ourselves really inside the blockade and just under the guns of Fort Fisher. We let go anchor to wait until the tide made sufficiently for us to cross the bar. Found the place where we had sent the boat on shore to be Masonboro Inlet about 20 miles to the northward. About 7 am the fog lifted and a small Yankee gunboat came in and opened fire. We answered from our large gun. The firing brought up three more who all commenced firing as fast as they could, we replying, the Fort firing occasionally. About 7:30 the Yankees drew off. At 8 they returned to the attack with five vessels, whereupon we got underway and crossed the bar in safety. At 10:45 crossed the Rip and proceeded in towards Wilmington. The Fort opened fire (on the Union vessels) when we came in and the Yanks hauled off again. Reached Wilmington about 11 am. Found *Tallahassee* safe in port. She had destroyed six vessels, one of which was a brig we chased the second day out.

(Until about the middle of December nothing more occurred. The officers were granted leave. *Tallahassee* was put out of commission about the 15th [and later sailed under the name *Chameleon*]. I had expected to go out in her, but I slipped up in my expectations. Heard of the grand Yankee fleet at Beaufort, N. C.)

Dec 20

Heard that the Yankee expedition had appeared off the Bar. Great excitement prevailing in Wilmington. An order came from the Commodore to send all the available men and officers down to Battery Buchanan (Navy Battery) to report to Lieutenant Commanding Chapman, CSN. Lieutenant Roby took charge of the party, 24 men in all, and I and passed midshipman Berrien also went. We found that we were to go to Fort Fisher to fight two 7-inch Brooke guns.

Dec 21

Marched the men up to Fort Fisher which was a mile and a half distant and reported to Colonel Lamb. Our men were given an old shanty for quarters while we were quartered and messed with some very pleasant officers. They treated us with great politeness and as far as possible made us comfortable in this our first (or at least for some time) attempt at soldiering. The Yankee fleet is well off [shore] today on account of the weather. The monitors have not yet left Beaufort. It is blowing a strong gale and there is a tolerably heavy sea on the outside. In the fort the sand blows in every direction.

Dec 22

The weather is better today but intensely cold. Stationed and exercised my crew at the gun which is a 7

CHASE ENDS in disaster for blockade-running schooner *Enchantress* captured off Richmond by the *USS Albatross*.

inch Brooke Rifle (Navy Pattern) mounted on an Army Columbiad carriage. It requires eight men to work it. Drilled again in the evening. At regimental parade the Colonel made a short speech to the garrison and the Chaplain offered prayers. We are now living on Army rations but we get along well enough and do not growl more than usual. Weather too rough at sea for the fleet to operate.

DEC 23

We expect an attack tomorrow.

DEC 24

Movements of the fleet plainly visible as they are close in. The Long Roll beat about 1 pm and we went to quarters and were soon all ready for action. The frigate *New Ironsides* and three monitors, *Mahopac, Monodock,* double turreted, and one single turreted led the way, the frigates coming next and then the sloops and gunboats last. They came up two abreast opposite the Fort when the outer line came on around the sea face and took their positions.

The enemy will have to cross the Bar and Rip. Fort Fisher has about 50 guns and the fleet brought into action 580 guns, ranging from 15 inch and 100 pound Parrotts down. At 1:20 pm the Yankees fired the first gun and then the action commenced in earnest. It is estimated that the enemy threw on an average 100 shells a minute. The Fort replied slowly as the firing was too hot to keep the men at the guns. The quarters in the Fort were soon in flames and the flag was soon shot away. The noise of the guns and bursting shell was deafening.

Our sailors behaved with great coolness, and as we had no relief crews they had tiresome work. Towards the last of the action one of the men was mortally wounded in the right shoulder by a piece of shell which also hit me, very slightly wounding my left knee. Lieutenant Dornin, who came up as a volunteer, took charge of the gun when I went to the hospital. I fired mostly at the USS frigate *Susquehanna* and think I struck her in the fore chains on the starbd side. About 5 pm the fire slackened and the fleet hauled off, it being too dark for fighting and I must say that I was not sorry for it.

DEC 25

As soon as possible we went to our guns and piled sand bags to protect our battery which was in an unfinished state. The Yanks did not give us much time however, as the line came up and opened fire at about 9 am as heavy as the day before. Just before the action Berrien and myself fired our guns and then carefully swabbed them out with a wet sponge and then gave them a careful scraping. The fleet took very much the same position as before except they went a little further around toward Battery Buchanan. During the hottest part of the action the Yanks lowered their small boats and came in to sound the Bar and also drag for torpedoes.

I was firing my gun at three boats when it burst in many pieces knocking down all of us who were around it and wounding LT Dornin and five or six men. The bands separated and flew in every direction. It is truly wonderful that any of us escaped from the gun pit alive. There were however, but two or three men wounded seriously. Soon after that, Berrien's gun (also a Brooke) burst in the same way and with much the same effect as to the men around it.

I left the gun and went to headquarters where I carried a few dispatches but I was mostly employed in

CSS CHICKAMAUGA a sleek two-stacker was typical of the Confederate blockade-runners during the Civil War.

getting the militia men out of the bomb proofs where they were huddled. I had then an opportunity of using all the Boatswain's Mates' talk that I ever heard. The enemy about that time threw out a heavy line of skirmishers who advanced nearly up to the land face of the Fort. They were soon opened upon with grape and canister from the heavy guns, which caused them to retreat.

We were well tired out when the fight ceased, but of course great vigilance had to be, and was, kept up during the night. To add to the disagreeableness of the night, it rained in torrents. Also blew quite hard.

DEC 26

The rough sea was, I suppose, the reason the Yankees did not come up this day. We could see from the parapet with a glass, the Yankees embarking from the beach in their small boats. I watched the heavily laden transports go off to sea and then with great pleasure a portion of the fleet sail. Everybody in the fort busily engaged today in repairing damages done to the works. Some of the guns were disabled, but the fort is still in good condition. The casualties in the garrison yesterday amounted to about 70 killed and wounded. The inside of the fort is covered with pieces and whole shell.

DEC 27

Stayed at Fisher until evening when we were ordered back to Battery Buchanan. On our arrival there with our small squad, all that were left of 24, used up men, Captain Chapman turned out the garrison and gave us three cheers, which we answered. We stayed at Buchanan that night.

DEC 28

I went aboard the ship, being ordered back.

★ ★ ★

About the 15th of January, the Yankees took Fort Fisher, after three days' fighting, capturing all the garrison. Capt Chapman evacuated Battery Buchanan with nearly all his men. Our men as a general thing fought well. The company of Marines fought splendidly.

About the 2nd of February, I was granted leave to come in to Richmond and on the 15th I was ordered to the C. S. Ordnance Works.

Chickamauga was snug at Indian Wells on the Cape Fear River after the evacuation of Wilmington. *Chameleon* [ex-*Tallahassee*] was at Bermuda at last accounts and thus ends my blockade running. I am destined never to see salt water until the end of the War.

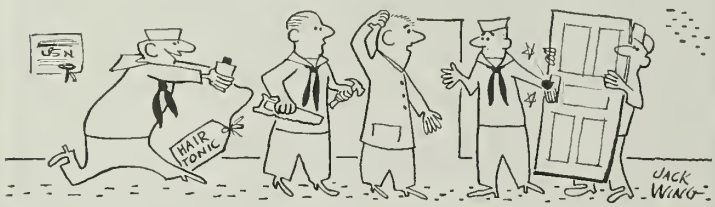
This 18th of March instead of turning over a new leaf (it being my 20th birthday) I will stop where I can.

TAFFRAIL TALK

SOME TIME AGO we told you of a Navyman who lost his battle with a soft drink dispenser. Now we relay the unhappy story of the SA at NTC Bainbridge, Md., who fought a door to a standstill.

Taking a short cut through the back door of the Pass Office to his barracks, he encountered a door whose knob had fallen off. Even as you or we might have done in a similar situation, he stuck his little finger in the hole to turn the latch. However, this latch was a little more reluctant than usual, for he got no results.

Being a reasonable man, he was willing after a few futile efforts to concede victory to the general cussedness of inanimate



objects. This inanimate object, however, didn't know when to quit. It insisted on hanging onto our hero's finger no matter how much he twisted, turned or pulled. His shipmates, attracted by the rumpus offered numerous suggestions, none of which had any practical value.

Public Works, summoned by an emergency call, scratched its collective head and decided the best way to cope with the situation would be to take the door off its hinges. The SA went along with this idea but it still didn't release his finger. Some two hours after the incident began a BM1, returning to the barracks after a liberty, watched the conflict for a few moments, then went to his locker, returned with a bottle of hair tonic and poured a few drops where it would do the most good. End of struggle.

★ ★ ★

How long can one enlistment last? Four years? Six years? You're wrong. We know of one fellow, John B. Hessley, now a lieutenant commander, who is still serving on his first enlistment which began on 1 Nov 1938—17 years and nine months ago. Here's how it works out:

- He enlisted on 1 Nov 1938 for four years.
- On 31 Oct 1942 he extended for two years.
- On 15 Oct 1943, he was issued a temporary commission as ensign.
- Since this temporary commission placed him in the "dual status" in which all temporary (ex-enlisted) officers were placed, his current enlisted contract under which he was then serving, was extended indefinitely until his temporary officer status was terminated.

He is still serving under his original enlisted contract.

Beat *that*, if you can.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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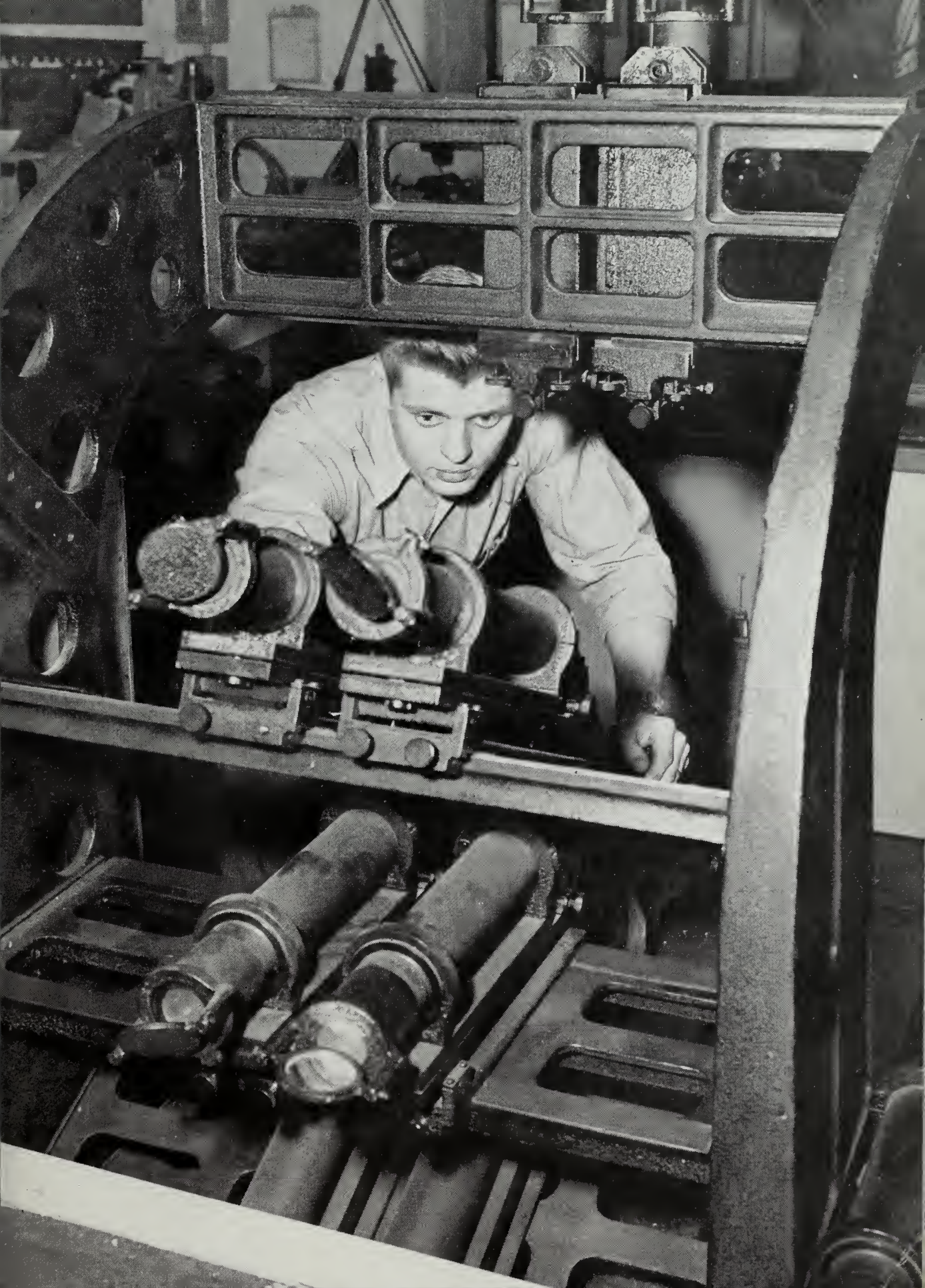
• AT RIGHT: ON BOARD USS *Sierra* (AD 18), J. Gunderson, OM3, USN, uses his technical knowledge in the precise task of aligning the optical system of a Mark 9 telescopic collimator.



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★ **NROTC**
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★ **NAVCADS**
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★ **WO**
Warrant Officer

for information see your division officer or personnel officer

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

UNIVERSITY OF FLORIDA
JUL 16 1956
SOCIAL SCIENCES

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JULY 1956 NavPers-O NUMBER 473

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The Chief of Naval Personnel

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• **FRONT COVER: BOGEY MAN—Radarman Third Class D. W. Sullivan, USN, is highlighted by glow from radar scope as he scans the screen for possible bogeys while on duty in CIC room on board USS *Calcaterra* (DER 390).**

• **AT LEFT: DESTROYERMAN COMES ACROSS: From tin can to flattop personnel swing across choppy sea as high line is rigged from USS *Orleck* (DD 886) to USS *Yorktown* (CVA 10).**

• **CREDITS: All Photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.**

Living Afloat—

Do-It-Yourself 'Hab Hints' fo

PEANUT-CAN ASH TRAYS or empty powder cans to substitute for missing butt kits; fancy rope and canvas work to decorate ladders and stanchions; a piece of line strung between bunk stanchions and chains to make a quick-drying towel rack; or a towel tucked between the mattress and frame of the bunk above to baffle the overhead lights when you hit the rack early—all these were forms of "do-it-yourself" habitability no further back in the good old days than yesterday.

Usually, too, a couple of lucky guys in each division could wangle space for a small record player and a batch of discs—or even a guitar to lend zest if not melody to off-duty-hours sing sessions.

These attempts to make shipboard life a bit more pleasant and comfortable seem rather piddling.

However, they were about all that could be done aboard ships which were probably already in a critical stability condition.

Before WW II and the days of such complicated — and weighty — electronic devices as fire control systems, half a dozen varieties of radar, sonar and communications equipment, life at sea was harder, but ships offered quite a bit in the way of habitability. However, as Men-O'-War were loaded down with more and more gear designed to make them better fighting tools, something had to give —so berthing, messing and recreation spaces and facilities gradually gave.

Then came "habitability" as a military characteristic of ships in the "New Navy." Items like air conditioning of all living spaces, bunk partitions, and berth lights have become standard equipment on new ships. Specifying such features for new construction presents little or no problem, since their added weight can be compensated for in the building.

But older ships are something else. For one thing, there is the question of money. Then there's the business of weight and moment—stability is one of the most important considerations in building and equipping a ship, and it must be jealously guarded if a ship is to remain seaworthy. However, years of accumulated lead-base paint and the addition of item after item of new equipment have perhaps reduced your ship to a critical stability condition. If that's the case—or if your ship doesn't have the money to spare—then you can't have much in the way of major habitability improvements.

Even so, the Bureau of Ships has come up with a plan that allows practically any Navy ship to have at least a few habitability features. This plan may be found in *Fleet Hab-Hints* (NavShips 250-5332), a looseleaf notebook of mostly "do-it-yourself" projects for making your ship more liveable.

The notebook, which should be available aboard your ship, contains page after page of suggestions (most of which originated in the Fleet) and new pages are added from time to time. Each sheet describes an improvement, tells what vessels may use the suggestion, the estimated cost of each item, whether weight and moment compensation are required and who must approve the installation aboard your particular vessel. Each page also illustrates methods of applying the suggestion and, where applicable, detailed diagrams for building and installing the "hab" items.

The booklet also points out that ships which have their own ideas for "do-it-yourself" projects to make shipboard life more comfortable should forward their ideas to the Commander, San Francisco Naval Shipyard. If your ideas can be made to work for a number of vessels, they will be added to the booklet for possible use by other ships. You may send in pictures, drawings, sketches or word descriptions of your habitability hints.

Your ideas for "do-it-yourself" habitability should be like those already "in the book"—easily installed by your own ship's force, with funds available. Now let's look at some of the ways you can make your living areas more homelike — provided you've got that old working spirit and your ship has whatever money and approval is necessary. And incidentally, all these items are already in the *Hab-Hints* manual.

Beginning with your berthing compartments, you can start off with the decks and work right on up to the overheads. Instead of hitting that cold steel every morning at reveille, you may now hit a deck that's covered with fire retardant linoleum tile in dark green, terra cotta or six marbleized color patterns—and the colors may be mixed or matched to suit yourself—or your bosses. (Note: fire retardant linoleum is being superceded by fire retardant plastic tile. This change will be added to *Hab-Hints* later.)

If you're tired of the usual white or green bulkheads, they can be repainted in such fashion-plate tones as Beach Sand, Clipper Blue, Rose Wood, Sun Glow, Pastel Green, Green Gray, Yellow Gray, Pearl Gray or Light Blue. Practically all of these

davy Ships

semi-gloss pastels are already available at naval supply centers in an improved chlorinated-rubber base paint. These paints can be applied by brush, spray or roller, and may be used unadulterated on bulkheads. Because of the higher light reflectance needed, overheads should be left white. However, if you so desire, you can mix your chosen color with white to produce a pale tint with adequate reflection. Use of these paints doesn't require Bureau of Ships approval. The cost is only about $30.00 per 1000 square feet, and BuShips has made available all the dope you need to be your own decorator.

But before you paint, check your insulated bulkheads. If the insulation is scarred and broken, you can apply new brattice cloth right over studs and all. Then your new paint job will really look shipshape.

If you've got empty bulkhead space that could stand a bit of brightening, you might have a shipboard artist paint you a mural, or mount photographs or mural wallpapers. No glass, though, because of the splinter hazard; and pin-ups are not considered to add anything homelike to the general atmosphere of your living compartments. Pictures may be covered by a commercial coating, and painted borders can simulate mats while eliminating the weight of frames. These, too, need no BuShips aproval.

Another inexpensive — and easily

REMODELED AND NEW—*Above:* Crew of *USS Albany* (CA 123) enjoys remodeled lounge. *Below:* Sailors inspect new lockers on *USS Haverfield* (DER 393).

LOUNGE, LIBRARY and hobby shop were built by crew of *USS Chourre* (ARV 1) with salvage material and $80 from welfare and recreation fund.

accomplished — habitability project is the installation in living compartments of mirrors with a light over them and plug-ins for users of electric shavers. Such outlets make shaving possible when washrooms are secured, cut down on the amount of toilet gear to be lugged back and forth between the washroom and your compartment, and decrease traffic in washrooms jammed by liberty hounds.

Have you ever found it next to impossible to get whites or blues pressed aboard ship, or tried to borrow an iron and find a place to use it? *Hab-Hints* has your answer: Installation throughout the berthing spaces of one steam or dry iron and ironing board for each 50 men in the crew. The ship's force can easily turn out the clips needed to hold the boards to the bulkhead while not in use and the sheet metal boxes for stowing the irons. While only electric irons are listed in standard stock, both irons and boards may be procured commercially.

Hab-Hints also tells you how to alleviate the twin nuisances of laundry bags and present types of peacoat lockers. One of the new peacoat lockers looks like a larger version of the present cleaning gear locker, and is built to hold eight coats in each of its two tiers. Or a wardrobe type locker may be built large enough to suit your needs. The smaller type fits into blind passages between berths; the wardrobe type may be built into any available corner or with the back to any open bulkhead space.

Lockers to replace the present unsatisfactory canvas laundry bags are recommended for the space under ladders, but they may be installed wherever you have space for them.

In case you don't like the present lighting in your compartment, fluorescent fixtures are available, or you can get from standard stock light baffles designed to fit all metal 100-watt overhead fixtures. These baffles control the distribution of light, eliminating glare and dark overheads.

So you fancy up your compartment with better lighting, a colorful paint job and sparkling new deck covering. There are no more laundry bags to be scrubbed every week—but what about that old sack itself? Well, that too can be more habitable.

For instance, foam rubber mattresses in standard sizes for Navy-type bunks are available for crews' quarters, as well as CPO and officer's quarters. They're softer, easier to clean and sterilize, help you to make a better-looking bunk—and compartment—for inspections, and are much more comfortable to sleep on. If you don't believe it, just ask the men of USS *Robert F. Keller* (DE 419), who've been doing their dreaming on foam rubber for some months now. LTJG D. F. Kiechel, USN, who's gunnery officer on this DE, points out that some of the guys, of course, don't like the new mattresses, just as some of them gripe about the pastel paints and curtains, but "you can't please everybody."

Included in the habitability book is a berth front stanchion and lee rail, designed to replace the bunk chains now in use—and brother, if you've ever tried to find enough chains of the same length to make a tier of bunks hang evenly, you'll know how much this can add to your comfort. They also eliminate noise, and make it easy to raise an entire tier of bunks at one time for sweeping and swabbing, or clearing a passage for the movement of bulky supplies.

Via submission of a "shipalt" before your ship has her next yard period, you can have metal berth

DO-IT-YOURSELF — Many crews, like men of *USS YV-2* shown here in room they gave themselves for Christmas, have pitched in to help improve their ship.

partitions to provide semi-privacy and a shield between you and the guys "next door." As designed, the partitions contain utility stowage space and towel rods for each bunk. While these partitions require the approval of BuShips, that's easy to get if your "tub" can stand the added weight. Or you can use the plans for making canvas utility shields for each bunk. These do not make head-to-head berthing permissible but provide some privacy and handy stowage for toilet articles, shower clogs, magazines, cigarettes, stationery, or almost anything else you like to have handy.

A "crew's utility bag" (one per berth), Fed. Stock No. DF8105-286-5455, is being added to your ship's allowance. The bag is light green, eight inches in diameter, twenty-three inches long, and has a zipper on the long side. This bag will hold all the foregoing articles and has straps and snaps for attaching to folding berth frame or other support. (This item is not in *Fleet Hab-Hints.*)

To add a final homelike touch to your rack there are individual berth lights already available in standard stock, (not yet mentioned in *Hab-Hints*). These, too, can be installed by your ship's electricians. BuShips approval of this item is required.

The compartment may be finished off with such fripperies as individual ventilation system terminals for each bunk; combination berth-tables which utilize spare berth space and can easily be removed and stowed when you need more bunks; hinged writing desks which can be installed (with a light) wherever you have the space; or four-man card tables which can be stowed on the bulkhead when not in use.

Once you've turned your berthing compartment into a classy dormitory, you might turn your attention to your washrooms. First off, there's the rubber terrazzo deck covering. While not quite a "do it yourself" item, since it must be installed by a shipyard or qualified repair activity, these deck coverings greatly simplify sanitation and deck upkeep in washrooms, water closet spaces and showers (or any other spaces where it is continually wet).

Two items from standard stock, soap dispensers and paper towel dispensers can be installed at the rate of one for each two wash basins—eliminating running back and forth between your locker and the washroom with your own cleaning gear. Of course, you also need receptacles for the used towels, but these too are standard stock.

Then there are individual fluorescent lights, each complete with its own switch and shaver outlet, to be fitted over the wash basin mirrors. Your ship's force can make and install towel bars and racks to hold toilet gear. Soap dishes and clothes hooks are stock items, easily installed.

If you really want to go all out, there's even a system for beating the wet towel mess. Large lockers may be built near each shower room and stocked with towels fresh from the laundry. Nearby, a receptacle must also be built for used towels. Then you set up a "linen service" to pick up the dirty towels each day and restock the locker with clean towels. The system works fine—as long as each man cooperates by turning in a dirty towel for each clean one he uses. And you won't have to bother with hanging a wet bath towel in your locker or take a chance on having it impounded by your MAAs.

'GEDUNK STANDS' help make Navy ships a better place to live. Here a Ship's Serviceman of *USS Carronade* inspects the stand's ice cream machine.

PADDED SEATS, SMALL TABLES make mess hall of *USS Rupertus* (DD 851) more liveable. 'Fleet Hab-Hints' (NavShips 250-5332) contain many ideas.

EASY TO INSTALL curtains add privacy as well as cheerful color to sleeping quarters of Navymen at sea.

PHOTO MURAL, SLIP COVERS and bulkhead-to-bulkhead carpet give the remodeled lounge aboard *USS Lake Champlain* (CVA 39) a plush touch.

A number of habitability improvements have also been dreamed up for messing and recreation areas. Aside from fluorescent lighting, new deck coverings and pastel shades of paint, you can add plastic tops to your present mess tables. Or there are four-man tables with foam rubber benches or stools upholstered in imitation leathers. In such tones as cordovan, yew green, sandalwood, crimson or blue, these are guaranteed to lend colorful comfort to mess areas, recreation areas or your gedunk stand.

For the chow line itself two types of rotary toasters are available. These will turn out 300 or 500 slices of toast per hour, with a guarantee that your daily bread will be neither burned nor soggy when it's toasted. And you can have salad bar arangements, either "homemade" or bought commercially, which present an appetizing array of salads, raw vegetables, relishes or fruits and dressings.

For the scullery area, in addition to new arrangements for garbage cans, there is a new fangled cutlery bin which eliminates unsightly washer racks or the usual dishpans half filled with water—and grease and food scraps. The new bins can be turned out by your shipmate metalsmiths and automatically (with your help that is) separate knives, forks and spoons into different racks, ready for the washer.

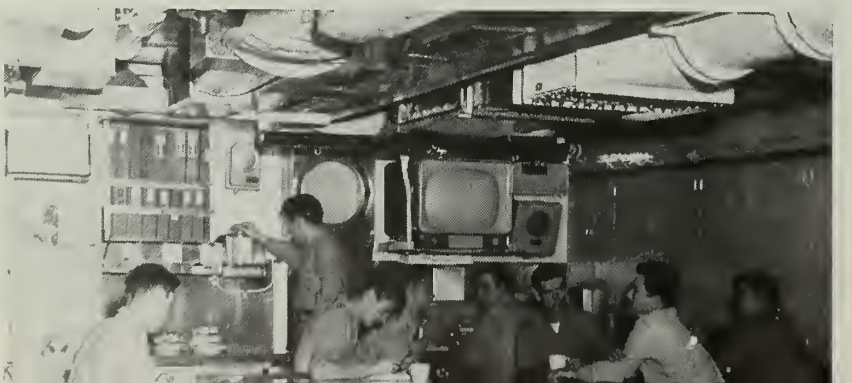
Other *Hab-Hint* suggestions which can add to your ship are:

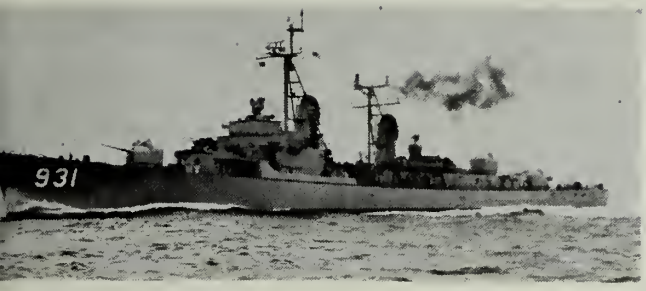
- End tables, from standard stock, which can be combined with commercially-procured lamps and ash trays in your crew's lounge, or the CPO and wardroom lounges.
- You can appoint "decorators" from your crew to select drapery material in bright colors or patterns, to make lightweight drapes for optional partitions or for use in concealing pipes, wireways, etc., in lounges and messing areas. Aside from their looks, curtains help deaden noise.
- Magazine racks are a standard stock item, easily installed and an invaluable addition to your library, lounge or other recreation area.
- If you've got any upholstered furniture aboard that's getting pretty beat up, you can have it redone in tough imitation leather—crimson, sandalwood, green, cordovan or blue.
- Why not consider the installation of a hobby bench which is first-rate for such things as weaving, ceramics, wood carving, jewelry making, leathercraft, or making model ships, cars, and airplanes. The benches (and tool lockers) may be bought on the open market, or you might make your own.
- Soft drink vending machines are mighty handy to have around when you're "taking ten," or when your gedunk stand seems always to have half the crew in line for ice cream and sodas. On top of the convenience, the machines return a profit to the ship's recreation fund.
- "Juke boxes" or record players which take fifty 45-rpm, 7-inch discs may be installed. The record players may be listed as shipalt equal to a repair—and your own crew members "can do."

Remember, before you start on this habitability work, you must consult *Fleet Hab-Hints* to find out about whose approval, if any, is necessary and whether weight and moment compensation is required. This info is given on each page of the *Hab-Hints" Booklet.*

Barney Baugh, JO1 USN

EVEN LIMITED quarters of a sub can be improved with new materials and ideas now available to ships through the BuShips habitability program.



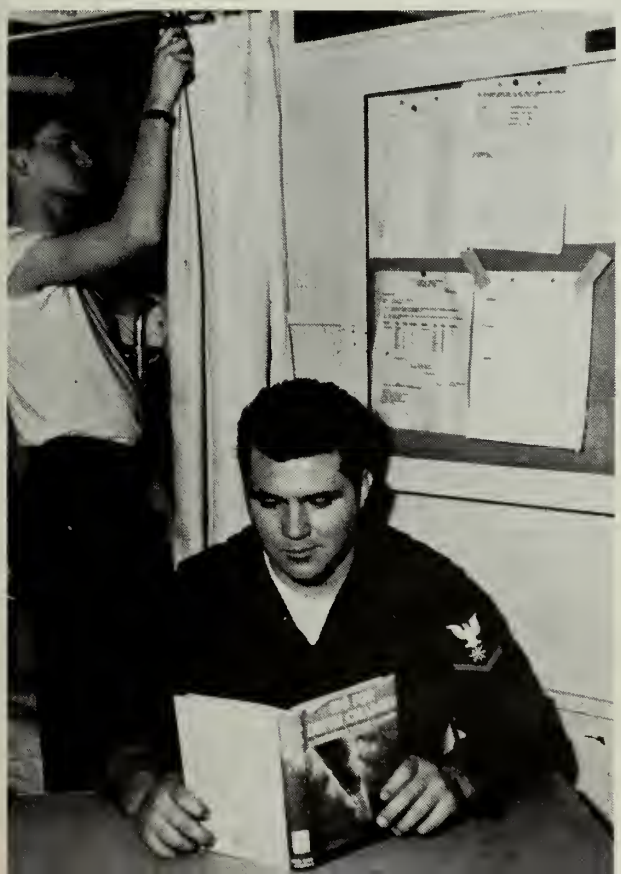


Hull of a Nice Ship

Uss *Forrest Sherman* (DD 931) is the talk of the Atlantic Fleet and probably her reputation has spread to the Pacific as well. This much-talked-about destroyer is a prime example of the New Navy not only in her sleek outward appearance and fighting gear but also in the improved living conditions inside her streamlined hull. She is the first post-war destroyer and has all living and working spaces designed to give maximum possible comfort and efficiency.

This air-conditioned forerunner of ships of the future has many "hab" hints that have been copied by the crews of her older sisters to make them more comfortable too.

Top left: uss *Forrest Sherman*. *Top Right*: Individual toilet gear lockers with vented backs save men from carrying shaving gear, etc., to and from head. *Right:* CPO mess is on main deck level instead of below decks forward. *Lower Right:* Each berthing compartment has small recreation area partitioned from bunks by lockers and curtains. *Lower Left*: Destroyerman pulls curtain to three-man bunk room while shipmate reads.



THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **ESSAY WINNERS ANNOUNCED**—The five top entries in the "Life in This Navy" contest have been named. All entries were true anecdotes in a humorous vein, unpublished, and based on the contributors' own experiences.

First place winner is Thomas R. Taters, YN3, USN, stationed at Treasure Island, San Francisco, Calif. His anecdote was entitled, "A Request for Blood" and concerned an incident in which blood donors at Treasure Island were to get special liberty but were delayed.

The second through fifth place winners are: Francis J. Walch, YNC, USN, Atlantic Reserve Fleet, U. S. Naval Station, Orange, Texas; LCDR Richard C. Minasian, CEC, USNR; LCDR Randolph W. King, USN, Bureau of Ships, Washington 25, D. C.; and Clause C. Hile, BT1, USNR, U. S. Navy Recruiting Station, Portland, Ore.

• **SELECTED FOR W-1**—The names of 376 first class and chief petty officers selected for temporary appointment to the grade of Warrant Officer, W-1, in five categories, have been announced.

Of this total, 200 will be appointed when administrative requirements have been met and personnel found physically qualified. A breakdown of these 200 to be appointed follows: Ordnance Control Technician (724), 10; Machinist (743), 70; Aviation Electronics Technician (761), 15; Communications Technician (764), 35; and Electronics Technician (766), 70. They have been notified of their selection and impending appointment by individual letter.

• **SHIPBOARD SEPARATIONS**—If you're about to be discharged, you may be saved the trip to a separation center under the expanded program of shipboard separations.

The program, authorized in 1955 for Atlantic and Pacific Fleet ships located in continental U. S. ports, has been tried out on ships in the Pacific Fleet. Since their reports indicate separation of enlisted men by large ships is practicable, the program is being stepped up by BuPers Inst. 1910.14. In addition to ships, other Fleet commands such as aircraft squadrons and construction battalions, when based ashore in the continental United States, are authorized by the instruction to undertake the separation of enlisted men. As experience in on-board separations increases, certain mandatory requirements will probably be set up for such actions.

The instruction applies to Stateside-located ships and other Fleet commands, which have on board, or in the immediate vicinity, facilities for making payments incident to discharge and for conducting separation physical and dental exams. It does not apply to Wave personnel, to commands which have no facilities for processing separatees nor to activities located outside the continental U. S. In these cases separatees will continue to be transferred for discharge under Article C-10201 of *BuPers Manual* and BuPers Inst. 1900.1B.

The requirements of the separation process are explained in the newly-revised *Guide for Separation of Enlisted Personnel* (NavPers 15877), which is being distributed to all ships and stations.

• **DEADLINE DATE EXTENDED**—The deadline for the submission of entries in the "Mrs. U.S. Navy" has been extended to 15 Jul 1956. The old deadline had been 15 June but the sponsors of the contest, The Fleet Reserve Association, wanted to give all hands ample opportunity to enter.

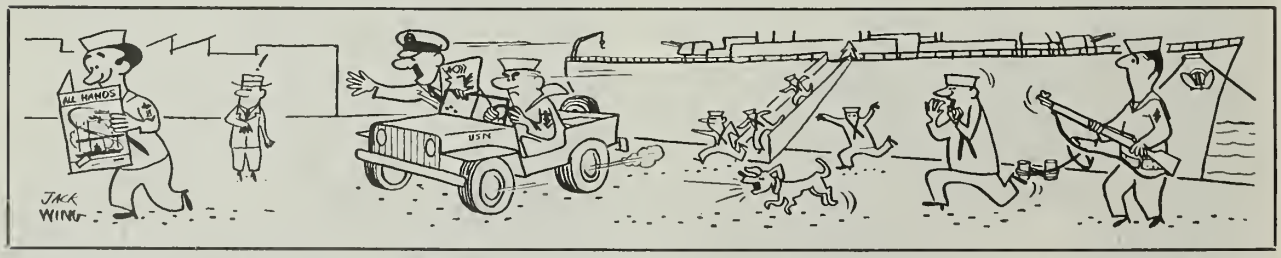
Any Navy career man may nominate his wife in this contest. Prizes include a $2500-cash award, 1956 automobile, a complete lady's wardrobe, a trip to 14 cities in the U.S. and Hawaii, an especially designed wristwatch, and a radio.

An important factor in the final selection will be the wife's contribution and support of her husband's Navy career. Wives must be nominated by their husbands.

Contest rules and sample application blank, which may be reproduced locally, are contained in BuPers Notice 1700 of 11 Apr 1956.

• **ALL-NAVY PHOTO CONTEST**—Winners of the Sixth All-Navy Photography Contest, held in New York City, were T. J. Gabris, YNC, USCG, CDR E. C. Scully, USN, and LTJG T. H. Newman, USN. They topped all other contestants in black and white enlargements. CDR Scully's entries also won places in two additional categories. J. J. Bodisch, GMC, USN, of USS *Boxer* (CVS 21), was another double winner. His photographs won places in two categories.

Judges of this year's contest were three civilians prominent in the photographic field. Trophies have been awarded to the winners of the seven places in the first category and to each of the three winners in the second and third categories. Winners in the three categories and the titles of their entries in the contest are:



WHEN LEAVING your ship don't take ALL HANDS with you — pass this copy on to at least nine other men.

Category I—Single black and white enlargements.

1. T. J. Gabris, YNC, USCG, 3rd Coast Guard District; "Family Portrait."

2. CDR E. C. Scully, USN, NAS Barber's Point, T.H.; "Mambo."

3. A. J. Novak, PH3, USN, NAS Floyd Bennett Field, N.Y.; "Patterns in the Night."

4. CDR J. A. Clark, USN, Staff, ComTwelve; "Caught in the Web."

5. J. J. Bodisch, GMC, USN, USS *Boxer* (CVS 21); "Old and New Japan."

6. J. P. Franks, PH2, USN, NAS Norfolk, Va.; "Only Child."

7. G. F. Nichols, HM2, USN, U. S. Naval Medical Unit, Tripler Army Hospital, Oahu, T.H.; "German Crystals."

Category II—Picture Story (*Series of three black and white enlargements*).

1. CDR E. C. Scully, USN; "Surfing at Barber's Point."

2. J. J. Bodisch, GMC, USN, USS *Boxer* (CVS 21); "EM Club, Yokosuka, Japan."

3. K. J. Grant, AT3, USN, FASRon 118, Naha, Okinawa; "The Sharks."

Category III—Color Transparencies:

1. LTJG T. H. Newman, USN, U.S. Naval Shipyard, Charleston, S.C.; "Obscured and at Rest."

2. CDR. J. L. Kenner, USN, Staff, ComOne; "Vermont Sunset."

3. CDR E. C. Scully, USN; "Waikiki."

All of the winners were entered in the Sixth Inter-Service Photography contest.

• **INTER-SERVICE PHOTO CONTEST** —J. P. Franks, PH2, USN, of NAS Norfolk, Va., won second place in the black and white still picture category in the Sixth Inter-Service Photography Contest. The prize winning photos were exhibited in the Pentagon.

Marine Lieutenant Colonel William Benedict, on the staff, CinCNELM, won first place in the color transparency category with his entry "The Parthenon."

Winners of Honorable Mention were R. W. Mengel, CY2, USN, Corporal W. A. Bellais, USMC, MSgt Jesse Blanton, USMC, all in the color transparency class; and TSgt E. R. Wojciechowski, USMC, in the black and white still category.

• **SELECTEES ANNOUNCED**—Names of men selected for retention, appointment or commission in the following categories have been announced, and notification forwarded to the personnel concerned:

1. A total of 161 officers have been named by a selection board which convened to consider applicants for retention who were originally commissioned in the Regular Navy from NROTC sources during the calendar year 1953. Numbers selected in the varying categories are: Line (General)—73; Line (Aviation) — 66; Supply Corps—18; Civil Engineer Corps—4.

2. In addition, a total of 272 NROTC graduates have been selected for appointment in the various staff corps during calendar year 1956, provided they meet all administrative requirements. These include: Supply Corps, USNR—142; Supply Corps, USN—89; Civil Engineer Corps, USNR—15; Civil Engineer Corps, USN—25; and Medical Service Corps, USN—1.

3. From Naval Aviation Cadets who had at least one year of commissioned service, a board has selected a total of 114 for transfer to the Regular Navy.

4. Under the Navy music program five men are to be appointed to the temporary grade of LT, USN, and 12 more to WO.

• **SERVICE RECORD MAINTENANCE** —The Chief of Naval Personnel has stressed the need for continued emphasis on accuracy in the maintenance of officer and enlisted service records, particularly in entries concerned with pay data. BuPers Notice 1058 of 11 May 1956 previously pointed out that rights, benefits and obligations of Navymen have become increasingly detailed with consequent increase in the need for detailed, specific data. Personnel officers and personnel men must know an increasing amount of precise data in order to make accurate entries in service records, since errors can lead to inconvenience and delay for personnel, as well as a considerable amount of costly paper work.

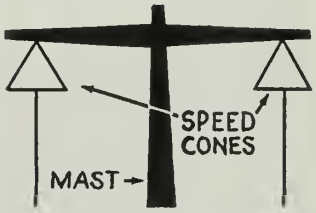
The notice, in addition, set forth the Chief of Naval Personnel's policy with respect to consolidating the service records of active duty personnel of small activities into a single large office in the interests of reducing errors and providing more competent guidance for personnel men and officers concerned with record entries. Centralization has been recommended by the Navy Comptroller.

QUIZ AWEIGH

All hands who read ALL HANDS will find this month's quiz a snap.

1. You'll recognize the above as the can buoy and nun buoy. These two buoys are especially significant because (a) they're so easily recognized (b) they indicate the port and starboard sides of a channel (c) they indicate an underwater obstruction.

2. The color scheme of these buoys aids in their recognition since (a) the can buoy is all black and the nun buoy is all red (b) the can buoy has horizontal black and white stripes and the nun buoy has vertical red and white stripes (c) the can buoy is all red and the nun buoy is all black.



3. At a glance you'll see that the above bright yellow, cone-shaped signals are Speed Cones. During daylight, ships steaming in formation use these signals to indicate (a) speed of the trailing ship (b) shaft revolutions (c) engine speed of the flagship.

4. If the cones are "two-blocked" as in the above illustration, it would indicate that the ships in the formation are steaming (a) ahead standard (b) ahead flank (c) ahead two thirds.

5. We have a new phonetic alphabet but the signal flags have remained the same. Also, two of the flags, shown above, kept their same names under the new system. They are: (a) Mike and Xray (b) Prep and Sugar (c) Dog and George.

6. If you answered the above question correctly, you'll know that the colors used in these two flags are (a) red and gold (b) blue and white (c) red and white.

You'll find the answers to this month's quiz on pp 57.

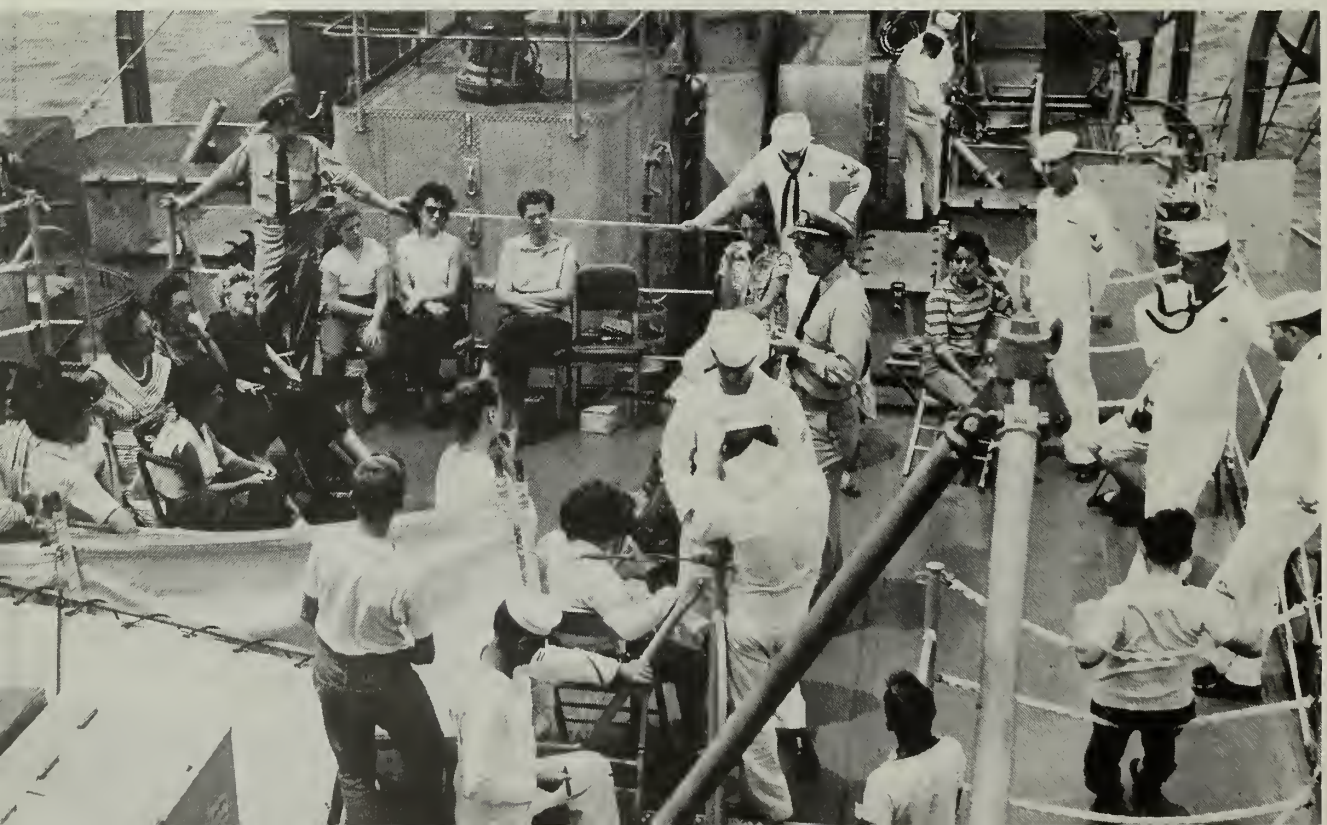
THREE MONTHS' cruise to Hawaii.

FAMILY

FROM PEARL HARBOR to Pensacola and from carriers to destroyers, "wives' days" and dependents' cruises are showing more and more Navy families that their seagoing breadwinners are as important to the Fleet as they are to the folks at home. Here's a rundown on some of the recent "distaff side" cruises ashore and afloat.

• ***USS Telfair*** (Apa 210) really did things up right when she made her cruise. Although plans to take along dependents were approved only two days before she sailed, the families of 12 crew members were ready to go when *Telfair* left San Diego for

USS YORKTOWN (CVA 10) steams to sea on 50-mile voyage for wives of crew. *Below:* Families relax on *USS Epperson* (DDE 719) during cruise off Waikiki.



MISSION was granted for *USS Telfair* (APA 210) to take families to Pearl.

A WAVE in the crew — Liz Salas, JO3, USN, was assigned to *Telfair's* crew to do story on dependents' trip.

CRUISE BOOK

a three-month yard period at Pearl Harbor. En route to Pearl, the 12 wives and 15 children got a real thrill out of seeing their Navymen at the jobs that keep ships going. Then, while the transport was being overhauled and repaired, they spent carefree weeks swimming, sightseeing and relaxing in Hawaii.

Wave Liz Salas, JO3, USN, also went along on the last phase of the cruise to cover the story from a woman's viewpoint, in what is believed to be the first assignment of an enlisted woman to the crew of a combatant ship of the Fleet.

• Since *Telfair* made her voyage out of San Diego, the distinction of making the first Pearl Harbor-based dependents' cruise is claimed by Escort Destroyer Division 12, which includes ***USS Nicholas (DDE 449), USS Philip (DDE 498), USS Renshaw (DDE 499) and USS Epperson (DDE 719).*** In an all-day trip, wives and children on board these vessels took turns at the wheel, toured the ships, watched the firing of anti-submarine projectiles and lazed in the sun while the Division was anchored off Waikiki Beach.

• ***USS Lexington*** (CVA 16) has given her crew a number of chances to show off their ship to the families. The first was on a voyage from Puget Sound Naval Shipyard, Bremerton, Wash., to Bangor, Wash., with 60 Sea Cadets, 200 crew-member dependents and 80 guests from the Shipyard as passengers. The second probably set a record when nearly 1000 wives were on board for an eight-hour cruise out of San Diego. Before that trip had ended *Lexington* began to make plans for another family cruise in the San Francisco area.

• San Diego was also home port for the wives' day of ***USS Wasp*** (CVA 18). Her 287 guests were left wide-eyed by a demonstration of fueling at sea with ***USS Gurke*** (DD 783).

• ***USS Yorktown*** (CVA 10) played host to 365 when she set out from NAS Alameda, Calif., on her ladies' day operation. Her guests were wives of crew members or of personnel serving with Air Task Group Four at Moffett Field, Calif.

• Even shore-based outfits are getting in on the act. ***VA-95*** put on a family day at NAS Alameda, for 82 dependents and guests. Highlight of the day was the launching and landing of four AD-6 *Skyraiders.*

• Everybody's doing it. ***USS Saipan*** (CVL 48), based at Pensacola,

WIFE MUSTERS X Division of *Yorktown* while the ladies get firsthand knowledge of Navy jobs. *Below:* Wives join crew in mess in *USS Saipan* (CVL 48).

LADIES SPOT JET on *USS Wasp* (CVA 18) while joining hubbies on cruise. *Below:* Families inspect *Skyraider* of VA-95.

Fla., staged two wives' days. On the first, the guests of honor were more than 80 wives of *Saipan* crew members. A month later *Saipan* repeated her performance for 60 Navy wives from NAAS, Whiting Field, Fla.

• Last, but not least was the cruise of ***USS Macon*** (CA 132) from Portsmouth to Norfolk, Va., which gave a brief taste of shipboard life to 80 wives and children.

Whether ashore or afloat, the visitors roamed from bow to stern and bridge to bilges, while their guides tried to answer every "What's this?" or "Why do they do that?"

HE DID IT?—Wife of J. Crawford, CS2, USN, is amazed by her husband's cooking as shipmate R. Tessier, CS2, USN, (rt) reassures her of his talents.

On board *Telfair* the kids wondered how the ship could find its way to port across so much water. The guests of the DDEs wanted to know why the anti-sub projectiles were called hedgehogs. On board *Lexington* the VIPs made thorough inspections of the recently recommissioned ship's new steam catapults, angled flight deck and hurricane bow. The ladies of *Wasp, Yorktown* and *Saipan,* and the wives, children and guests of VA-95 babbled excitedly or held their ears as jets swept in for landings or shrieked away on take-offs. On board *Macon* they watched every move as Navy tugs deftly worked the 17,000-ton warship into the channel.

The seagoing wives and kids didn't miss a thing. They saw guns, firerooms, enginerooms, sleeping quarters, post offices, radar rooms, barber shops, life rafts, dispensaries, shops, laundries, galleys, mess halls and everything else they had heard Navymen talking about. Even at mealtime, when they stopped climbing ladders long enough to take the edge from their sea-air appetites, they were learning about the Navy.

By the time their brief tours of sea duty were over the visitors had lost a lot of their curiosity about the life of a sailor. They came away with a new respect for the Navy, and a new appreciation of a man's pride in his ship. —Gerald Wolff.

A Sample of Overseas Living

When your central heating turns into a *hibachi*, your neat little painted house becomes a neat little unpainted house and your baby's newest pair of shoes are *geta*—pal, you've done moved your family to Japan, and probably into private rental housing at that. You'll still have baseball, jazz, American movies—but you'll probably be doing without television and some other favored electrical appliances, most of your furniture, and a thousand and one other things which add up to the American way of life.

What's it like? "An unforgettable experience," according to Mrs. Naomi Criner, the wife of LT Eugene F. Criner, SC, USN, of the Naval Supply Depot at Yokosuka. When the lieutenant was transferred to Yokosuka and found that it would be approximately a year before government housing could be obtained, he decided to go ahead and find private housing for the interval before GI quarters would be available.

Since the government supplies furniture and such basic items as a refrigerator and silverware, there was little worry over household goods; and personal effects are shipped from the States free of charge. And such private rentals are about the only satisfactory means of providing housing for families of servicemen who haven't enough priority points to obtain housing on U. S. military bases.

So when the current Stateside school term was over, Mrs. Criner boarded a Navy transport with her children and headed for the Land of the Rising Sun. In the latter part of August 1955 they arrived in Yokohama, to become another of the 600-plus Navy families renting private dwellings in the Yokosuka area.

Even the location of her new home —500 yards from a beautiful beach in the resort town of Hayama—couldn't do much to raise Mrs. Criner's spirits after she had examined her new domain, however. The unpainted walls, tiled roof and tiny, almost grassless yard were something less than she had become accustomed to; there was no central heating, the sink was barely 24 inches off the floor, and Mrs. Criner had visions of hundreds of little finger holes (her children's) through the rice-paper walls.

A few days later she was jolted by a "critter" which put the proverbial mouse to shame: she saw the first of a huge (but harmless) variety of spider common to Japan, a leggy beast measuring about six inches across. Mrs. Criner froze in her tracks and let out a yell for one of her two Japanese maids. The maid came, saw—and returned to her work with a nonchalant "*dai yobu*" (which is Japanese for everything from "all right" to "good").

Then there was the night the military police arrived with sirens screaming to warn them that a typhoon was on the way. Fortunately the typhoon elected to change course.

"Actually, though," says Naomi Criner, "we haven't really suffered and our American sense of humor works wonders."

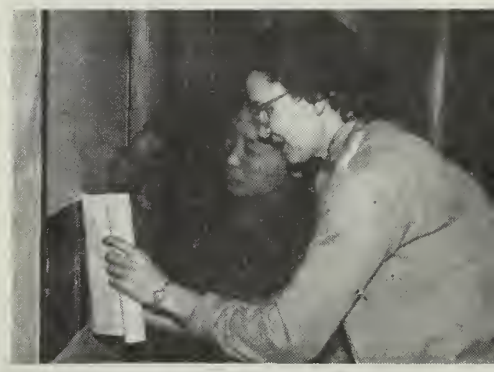
And the children—Carol, 8; Susan 6; Timmie, 4; Johnnie, 2; and six-month-old Robert—have found Hayama living a great lark. Not wearing shoes indoors and sitting on the floor are Japanese customs ideally suited to them—and two that the Criners expect to "export" when they return to the States, since they add up to fewer broken dishes, no falling off chairs and no dirt tracked through the house.

The Criners soon will have an opportunity for housing on the Yokosuka Naval Base—but now find they aren't at all eager to leave their Japanese home.

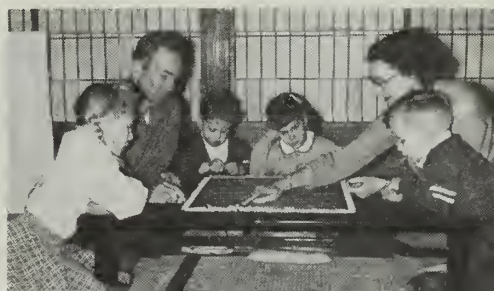
"In fact, we're just about decided to stay out here a little longer . . . for the summer anyway," they say.

TAKING A *FURO*—Japanese style bath was just one of many new experiences that thrilled the children.

'CENTRAL HEATING'—Morning warm-up with charcoal-burning *Hibachi* was used. Space heaters kept house warm.



NAVY WIFE learns how to repair rice paper walls. *Below:* Acey Deucy floors family playing on native table.



NAVY SMALL FRY overseas learn from the country in which they are living as well as in dependents schools.

An Education Abroad for Navy Juniors

BEFORE WORLD WAR II Navymen at America's few overseas bases were more or less left on their own when it came to their children's education. Usually, they chipped in from their own pockets to organize "cooperative" schools, which sometimes fell considerably below Stateside standards.

The only overseas dependents school operated by the Navy was one established at Guantanamo Bay, Cuba, in the '30s.

Today, it's different. No matter what corner of the world you may take your family to, chances are that your youngsters, whether they're first graders or high school seniors, will receive as good an education overseas as they would in the States —and at little or no expense to you.

The Navy has Stateside-style schools for its young globe-trotters at Argentia, Newfoundland; Kwajalein, Marshall Islands; Midway Island; Saipan, Mariana Islands; Chia Yi, Tsoying and Tainan, Taiwan (Formosa); Sangley Point and Subic Bay, Luzon, P. I.; Yokosuka, Iwakuni and Sasebo, Japan; Trinidad, B. W. I.; Guantanamo Bay, Cuba; Naples, Italy; and Port Lyautey, French Morocco. At other overseas bases the Navy makes the necessary inter-service financial arrangements so that its budding geniuses can attend some *additional 125 schools operated by the Army and Air Force* in 15 different countries.

These schools have little of the trouble with teacher shortages and overcrowded classrooms which now hamper some Stateside communities. Their main problem is the rapid turnover of students, since pupils enroll in or withdraw from overseas schools almost every day.

In many cases a child on his way overseas may miss a month of schooling. Then, when he reaches his destination, he finds he's an additional month behind because the overseas school has to stay that far ahead of the Stateside pace to account for the time outgoing students lose on their way back to the U. S. Thus, the newcomer's teacher must help him make up two whole months of schooling without pushing him too hard, and at the same time, without neglecting the rest of her class. It takes a mighty good teacher to handle a situation like that, and fortunately, that's just the kind of teachers the overseas schools have, for they hire only the best.

For every teaching vacancy in a place like Italy or Japan there are 50 to 100 applicants, and for openings at even the smallest, most isolated stations there are at least five to 10 job-seekers. This flood of applications comes from teachers eager for a chance to see the world, from schoolteaching Navy wives who hope to go overseas with their husbands, and in some cases, from schoolmarms who'd like nothing bet-

SHEEPSKINS TOO—High school students at Forrest Sherman in Naples listen to address during graduation. Navy dependents schools are fully accredited.

OVERSEAS FUN—School boys in Naples stage Apache dance. *(Rt.)* Children enjoy celebration at Yokosuka school.

ter than to become Navy wives.

Incidentally, if your wife has a bachelor's degree with the right number of credit hours in certain subjects, plus two years of teaching experience, there's a pretty good chance that she can obtain a job in the Navy school at the overseas base to which you are assigned, since Navy wives are given preference for these positions. If she doesn't quite meet the requirements, she may be able to teach in a cooperative school at some smaller activity.

There is no over-all program for coordinating a man's overseas duty assignment, with a teaching job for his wife, but some commands do have such a setup for their personnel. If you're interested, see ComServLant Inst. 1306.1C of 26 Jan 1955 and BuPers Inst. 1306.6A of 30 Jul 1954. For details on teachers' qualifications, salaries and application procedures, write to the Chief of Naval Personnel (Attn: Pers C113), Department of the Navy, Washington 25, D. C., via your commanding officer.

The quality of the teachers in Navy schools more than offsets the fact that overseas schoolbuildings are not as fancy as their Stateside counterparts. Long-established bases like Guantanamo Bay have facilities much like those in the States. Elsewhere, hospitals, jumbo Quonsets, pre-fabs, warehouses, barracks, special services buildings and a variety of other structures have been pressed into service.

The biggest dependent's educational facility is the Forrest Sherman School in Naples, housed in a large, modern building which will be used as a hospital when the Americans leave. With 1000 students and 45 teachers, it includes all grades from the first through the 12th. In addition to classrooms, it contains a spotless cafeteria where students can buy sandwiches, hot soup, fruit and desserts, and a branch ship's store which sells pens, pencils, notebooks and other supplies. Textbooks, as in all armed forces dependents schools, are furnished by the government.

The smallest school is at Chia Yi, Formosa, where 22 youngsters, from first to eighth graders, are taught by the same instructor in a little Navy "one-room schoolhouse."

Dependents' high schools stress the fundamental subjects (English, arithmetic, history, etc.) because enrollment isn't large enough to warrant the cost of hiring teachers for a great variety of courses. However, pupils who want to study subjects not taught by the school are able to take free correspondence courses in these fields with teachers from the armed forces school helping the students along in their mail-order work.

In Navy high schools your teenagers can find just about all the extra-curricular activities they would in the States — glee clubs, dances, school papers, bands and most athletics. But, if your boy wants to be a football hero, he's out of luck. Small enrollments, the high cost of equipment and the lack of competition in the same age and weight brackets make it necessary for the schools to get along without the pig-

NAVY'S FORREST SHERMAN school has students from all branches of service whose families are stationed at HQ Allied Forces Southern Europe, Naples, Italy.

PALM-SHADED SCHOOL HOUSE at Trinidad Naval Station takes care of the scholastic needs of 75 Navy dependents from the 1st through 8th grades.

skin pastime. In other sports, the schools play against intramural teams on the station, or in a few cases, against other dependents high schools in the area.

Besides the more routine activities, dependents schools offer some geography lessons that no Stateside school can equal. For example, at the Navy elementary school in Yokosuka, Japanese teachers come in for a half-hour every week to instruct the children in the dancing, art and folklore of Japan. On Kwajalein, supervised swimming instruction is part of the school program and extracurricular activities include excursions to neighboring islands, shell hunts and fishing parties. In Naples the students get to take field trips to such world-famous sites as Mt. Vesuvius and Pompeii.

Mothers and fathers have a voice in the running of dependents schools through parent-teachers associations and local school advisory boards, composed of officers, enlisted personnel and Navy wives.

At small activities, such as Naval Missions and Military Aid Groups, you may find that there is no armed forces school around, but don't worry — your children will still be able to get their three Rs with the help of Uncle Sam. In situations like this the Navy will pay all or most of the tuition for Junior to attend private, church, cooperative or local government schools if there are any within daily commuting distance of your living quarters. But, to make sure these schools are good enough, the Navy will not put up the money unless certain requirements are met.

'ALL-AMERICAN' FACULTY—Teachers in Navy dependents overseas schools represent many parts of USA. Naples staff shown is from 20 different states.

The school must be willing to accept and able to accommodate your youngsters, the quality of instruction must be about equal to that normally provided in Stateside schools and the language of instruction must be English. However, the last two requirements are sometimes relaxed when parents are willing to send their children to schools which don't quite measure up to them. Children just starting to school have little difficulty learning a foreign language when their teachers and classmates don't speak English.

On the whole, private and church schools in foreign countries compare very favorably with the same sort of schools in the States. A number of the church schools which Navy dependents attend in European cities are branches of the Marymount School, Tarrytown, N. Y., which is accredited by the New York State Board of Regents. All instruction is given in English. Cooperative schools (like the one operated by British and American residents in Athens, Greece), have improved a great deal over those of the pre-World War II period. Local government schools, except for their emphasis on subjects of special interest to natives of the country, are usually on a par with American public schools.

Even at activities which have no armed forces or tuition schools, the Navy will help out with Junnior's education. When there are no suitable schools around, you can become a teacher yourself, using correspondence courses furnished by the Navy. However, not many children have to rely entirely on this kind of schooling, because the Navy tries to send family men to places where their dependents will be able to get regular classroom instruction.

Correspondence courses are also used in cases where the local armed forces school only goes up to the eighth grade and Junior's in the 10th, or when Junior wants to take a course which a local high school for dependents doesn't offer. In these situations the armed forces school helps Junior in the selection of his courses and a local teacher assists him with his studies.

Unfortunately, the successful completion of mail-order courses does not guarantee that Stateside high

schools or colleges will give credit for them. Accredited Navy dependents high schools are authorized to grant credit for the satisfactory completion of correspondence courses taken with the approval and under the supervision of the school, but if your activity has no accredited armed forces high school, it's best to check with Junior's last Stateside high school, the next high school he will attend or the college he plans to enter, to see what arrangements can be made about the granting of credits. Some Stateside schools will give credit for mail-order study if the student can pass a test on the subject or if he does all right in more advanced study in the same field.

Since the purpose of the overseas dependents schooling setup is to keep families together, you can't send Junior to a boarding school away from your residence abroad at Uncle Sam's expense. But if you choose to pay for it yourself, of course, you can send him to any school you want. If there is an armed forces school handy, but you'd rather send your children to a local church school, you can also do this if you're willing to pay the tuition yourself.

The Navy has no truant officers. It doesn't need them, because Navy parents know the value of a good education. Attendance figures in overseas dependents schools are much better than the Stateside average.

The "board of education" for the Navy's global school system is the Overseas Dependents Schooling Unit, which at latest count was providing the three Rs for 8249 children. Of that number, 4490 were going to Navy-operated schools, 1417 were in those operated by the Army or Air Force and 1342 (except for about 50 being taught entirely through correspondence) were attending tuition schools.

Are you going overseas with school-age dependents? Then, here's some advice the Unit would like to pass on to you:

- Bring along the children's birth certificates. Any unmarried child, stepchild or adopted child, actually dependent on a Navy parent, is eligible for this program from the first through 12th grades while living with his parents overseas, provided he will have reached his sixth, but not his 21st birthday by 31 December of the current school year. Birth certificates make it easy to prove that your dependents are in the right age bracket.
- If possible, also bring along—or have the previous school forward—transcripts of your children's schoolwork; narrative reports on their personality traits, study habits, etc.; lists of the textbooks they have been using; and lists of their scores on standardized tests. These items are a great help in enabling your youngster to get the most out of his schooling.

Why does the Navy go to all this trouble and expense for a bunch of kids? Well, it's based on the principle that every American child is entitled to a free public school education, and a recognition that "the Navy takes care of its own." Career men are needed to keep the Navy in fighting trim. By the time Navymen have enough experience to be valuable they usually have wives and a family, and many fathers would soon leave the Navy if they were separated from their families too long and too often.

Thus, by keeping families together, good schools have become an important link in the Navy's chain of defense.

You, your youngsters and America reap the benefits. —Gerald S. Wolff.

NAVY FAMILIES ABROAD enjoy many activities. Schools include traditional American organizations such as Scouts and Parent-Teachers associations.

LIVING WITH DADDY in a foreign land leads to many thrilling experiences. Here brother and sister enjoy cruise on father's sub while stationed in Hawaii.

NONPAY RESERVES are skilled specialists such as electronics technicians above. *Below:* Reserve officers hold a critique on exercises held during training.

Sailors in Civvies:

Volunteer

EARL L. HOLMES, DCWC, USNR, is a Reservist with ideas. Not so long ago, Chief Holmes visited several Long Island, N. Y., hospitals as a representative of his civilian employer's welfare department.

He noticed a lack of entertainment facilities for convalescing patients—there were few radio and television sets to relieve the boredom of long hours in a hospital bed.

Chief Holmes gave the problem a little thought. His Naval Reserve unit — Aviation Company 3-2, Lindenhurst, Long Island, — included electronics in its training curriculum. Wouldn't it be a good idea if the members of this volunteer, nonpay unit could supplement their training with practical work on damaged or nonfunctioning radio and TV sets and, after repairs were completed, give the sets to the hospitals?

Obviously, the answer was "yes." But where could the Reservists obtain the "raw material"—the broken gear? Appeals were made to the local community. As the word got around, public response was overwhelming.

Since the program got underway,

Keep Up with New Navy

the Reservists have rebuilt and distributed more than 300 radio sets and 75 TV sets. And "Operation Repair" is still going strong.

Many units in the nonpay programs of the Naval Reserve have made similar use of imagination and hard work to increase the effectiveness of their training. Not all, of course, have been able to tie in their training with a concrete community service as was done in Long Island.

Members of nonpay Reserve units are highly skilled specialists in a variety of fields—ranging from automotive transportation down through the alphabet to telecommunications censorship. Some of these nonpay programs emphasize the administrative or planning level. Others are adapted to the unique skills of such Navy specialists as dental officers and technicians, experts in the fields of international affairs, law, ordnance, research and supply.

The Chief of Naval Personnel is responsible for activating these units and for coordinating training, with the guidance and assistance of the various bureaus and offices in the Navy Department which have cognizance over a particular area of training.

Today, more than a score of nonpay programs are available to Naval Reservists—in addition, of course, to the major and specialized pay programs. Every naval district and river command has established a number of these programs to enable officer and enlisted Reservists to take part in training and maintain their military proficiency.

There are over 1200 units now operating—and they're not confined to the continental limits of the United States. You'll find nonpay Reserve units in Alaska, the Philippines, Guam, Hawaii, Panama, Puerto Rico, Germany and Japan.

In some localities, no specialist unit that fits an individual Reservist's classification is available. Such a Reservist is not the "forgotten man," however. He may join a "composite" unit—made up of men who have specialties similar to his. This type of unit is especially effective in smaller cities and towns where there are not enough Reservists in a given classification to support a specialist unit.

Volunteer Reservists who join a nonpay unit must, in most cases, attend 24 drills annually. The exceptions are the electronics and telecommunications censorship programs, which hold 48 drills every year.

All nonpay programs are authorized 14 days of active duty for training annually. This ACDUTRA will be with pay and allowances when training duty funds are available. In cases where appropriate billets are available, ACDUTRA may be authorized without pay.

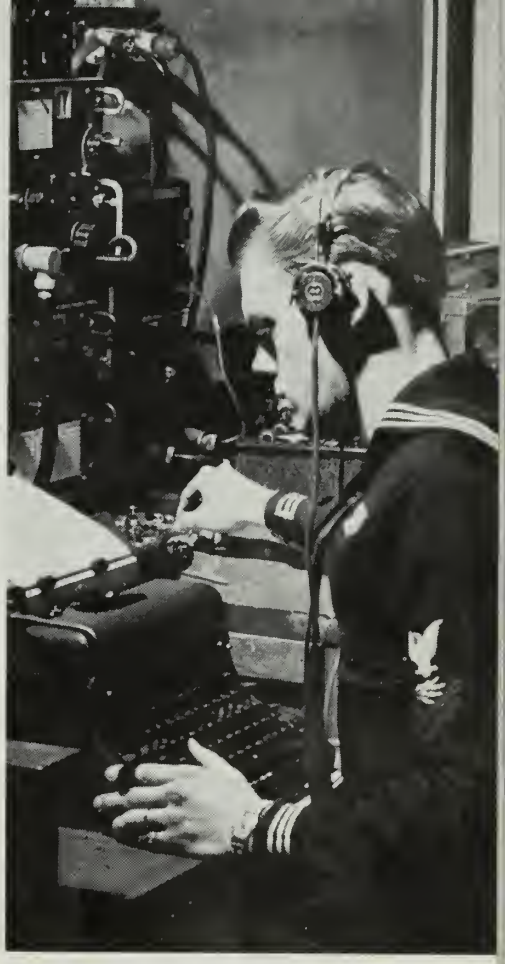
Most programs are open to all qualified Reservists in nonpay status, officer and enlisted. Women officers may enroll in any nonpay program for which they qualify except Chaplain Corps and Merchant Marine. Enlisted women are eligible for all programs open to enlisted personnel except Merchant Marine and Civil Engineer Corps.

Following is a brief summary of some of the nonpay programs available to Reservists today:

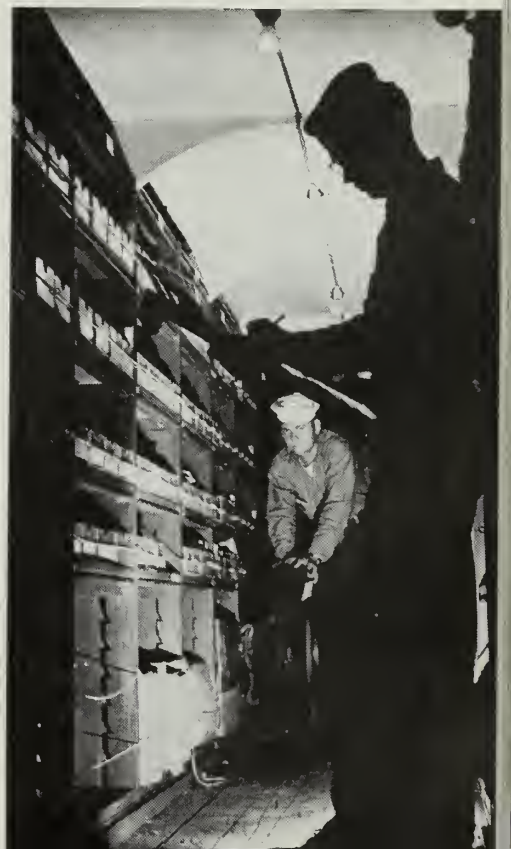
Automotive Transportation—A force of 2000 officers and enlisted men with special qualifications has been authorized for this program. Units may be formed whenever a sufficient concentration of automotive specialists exist in a given area. They are designed to train personnel to meet the needs of the Navy for extended land and foreign base operations. Training manuals and instruction material are supplied by the Bureau of Yards and Docks for the study of such subjects as maintenance of vehicles and tires, control of parts and tire supply, shop management, long-distance hauling, inspection policies and safety.

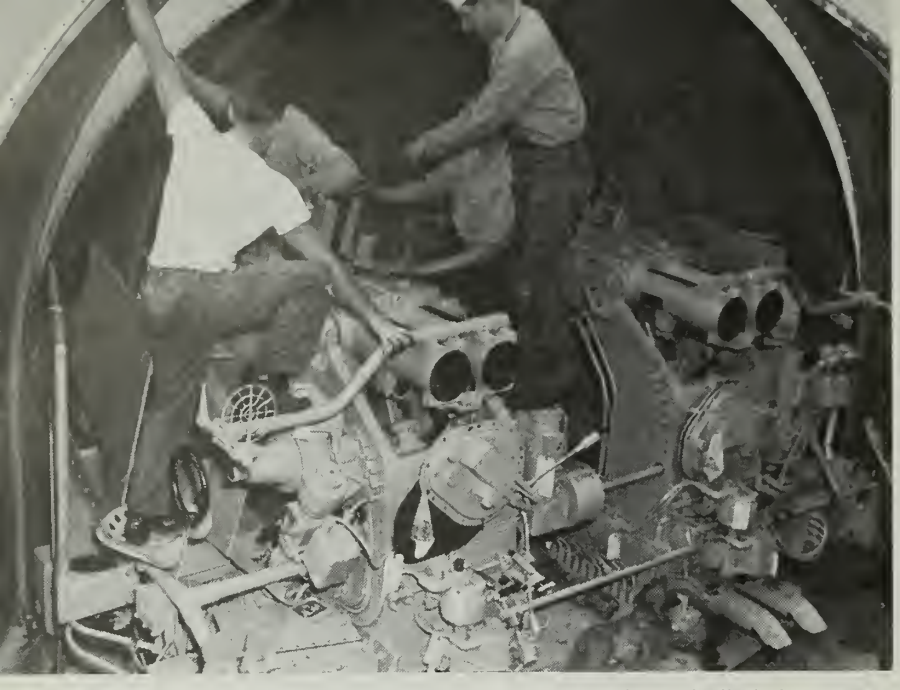
BuShips—Units in this program engage in specialist activities in various fields, ranging from firefighting and ship repair to engineering of all types and the activation of ships in mothball fleets. Membership includes officers who qualify in certain engineering fields, mathematics, physics and naval architecture. Officers with other experience or professional background and enlisted men in pay grades E-3 and above may apply, with their commandant's approval.

Chaplain Corps—This program provides a pool of Reserve officers who are ordained clergymen, qualified to represent their respective denominations and who are available for mo-



RADIOMEN keep in practice through Reserve units. *Below:* Reservists keep up with the Navy supply system.





UNITS UNDER BUSHIPS program study activation of mothballed ships. Here, sailors remove protective hood from 40mm quad of *USS Casa Grande* (LSD 13).

bilization. Enlisted persons (of Personnel Man W branch) who are trained in music or office work may also join these units.

Civil Engineer Corps—While the primary mission is to provide refresher training for officers in CEC officer classifications, enlisted men in Seabee ratings may also take part. Drills cover all aspects of civil engineering, as it applies to the Navy, including logistics, pontoon operations, camp sewage, breakways, drydocks, staging operations and the like.

Dental Corps—The Dental program trains Reserve dental officers and enlisted personnel of allied ratings. Training material for the program is supplied by the Bureau of Medicine and Surgery.

Electronics—These units are for Reservists who operate and maintain radio, sonar, radar and other electronics gear. Training is patterned after that of the Electronics paid program and involves two types—individual rating and team training. Any Reservist who is a licensed radio amateur may, with his commandant's approval, take part in USNR radio drills from his home radio station.

Intelligence—Training includes the field of investigation, preparation of special studies, research, security of classified matter and general administrative activities. The program is primarily designed for officer training, but enlisted personnel, in certain ratings, may apply for administrative billets.

International Affairs — Current events, geopolitics, the promotion of better understanding between nations and national groups are the main subjects studied by members of these units. The program is composed of officers whose experience and interest qualify them as specialists in international affairs. Enlisted personnel in pay grades E-3 and above may apply if they are in administrative ratings. Only two such units are authorized — one in the Eleventh Naval District and one in the Potomac River Naval Command.

Law—Reserve officers who are members of the bar of a federal court or the highest court of a state may apply for this program which includes training in military law.

CURVES OF MODEL island are studied by Reservists who are working out problems in their specialty.

Medical Corps—For qualified Reserve officers and enlisted Reservists in the hospital corps. Reservists who qualify for this program may request association with other USNR programs in areas where a Naval Reserve Medical Company does not exist.

Merchant Marine—This program provides training for personnel with an adequate knowledge of naval work and organization for service in combatant and merchant-type vessels. Companies are authorized to train in merchant ships which are able to support such training units. Line and Supply Corps officers currently serving in merchant ships are eligible. When these officers come ashore permanently, they may no longer take part in this program but may affiliate with the MSTS or NROS programs.

Military Sea Transportation Service—Trains qualified Reserve officers in various phases of military overseas transportation and shipping control.

Naval Material—Provides training in procurement and disposal of material, planning and control, quality control, industrial security, development contract administration, and the like. Officers with education or experience in business administration, production management, engineering and allied fields are eligible to take part.

Naval Research—Reserve officers who are qualified in the following fields are eligible: physics, chemistry, mechanics, mathematics, geology, biology and psychology, in the basic sciences; power and propulsion armament, missiles, flight, geographical exploration, amphibious and undersea warfare, in naval sciences; and in the fields of synthetic training devices, training aids, technical information, underwater and sound reference standards, scientific personnel and contracts, procurement and facilities. The program is also charged with administering inventions, trademarks, copyrights, royalties and the like. Therefore, Reservists trained in patent law and patent procedure may also qualify. Enlisted men, in pay grades E-3 and above and who possess qualifications which could aid naval research, may also apply.

Ordnance—For the study of guided missiles and powerful new types of ordnance equipment, explosives, arms and armament. Training includes such subjects as fire control, gun mounts and missile launchers, underwater ordnance, aviation ordnance, jet propulsion and countermeasures. Program includes both officer and enlisted personnel.

Petroleum—Officers associated with petroleum or in allied fields are eligible for this program. Enlisted personnel with administrative ratings may also enroll.

Public Relations—Reservists experienced in civilian or naval public information, mass communications media, or related fields or whose specialties are public relations, advertising, reporting, photography, telecasting, publishing, and the like, are eligible. Officers and enlisted personnel above pay grade E-3 may take part in this program.

Supply Corps—For officers only, this program provides training in the operations and basic industries that serve the Navy.

Telecommunications Censorship—This program is for officers and enlisted personnel not specially trained for shipboard duty but who have had World War II experience in telecommunications censorship components, or whose present education, training or related experience provides a similar background.

As you can see, there is almost no limit to the scope of training available to volunteer Reservists. From time to time, as the need arises, new specialized programs are established. Similarly, programs which become obsolete or which may be effectively combined with other related training programs are disestablished or reorganized, thus keeping the nonpay units an up-to-date part of the Reserve training program.

These units are fulfilling their missions to provide trained forces of experienced personnel in a particular specialty—personnel who would be available for mobilization in time of war or national emergency. When and if that time comes, the skills of the Reservists can be used to supplement the Regular Establishment.

INTELLIGENCE OFFICERS of Reserve units receive pointers on photographic interpretation techniques during drill.

ENLISTED MEN in Seabee ratings keep adding to their 'Can Do' knowledge. During annual training they perform on-the-job duties, like Reservists here.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D. C.

Assignment of SNs in Ships

SIR: We are in need of a final word from you in our attempt to settle a running argument between the personnel office and our executive officer—who may well be right again.

The assignment of seamen is our major problem. I maintain that each division in the ship should have a proportionate number of seamen assigned, men who are best suited (by review of service records and job code numbers) for training to fill billets and advance to the ratings and rates in which vacancies may occur. Unfortunately, I cannot find this in any manual or directive which we have aboard.

To be specific, when the Chief of Naval Personnel assigns an allowance list of personnel to a ship, does that mean that *all* seamen and SAs are to go to the deck divisions? Or may some of them be assigned to other divisions, to fill billets and qualify as yeomen, personnel men, storekeepers, etc.?

Can men who are working and are assigned as "general deck hands" be recommended for, and subsequently take, an examination for advancement in rating to some rate not in the deck group?

Isn't the job code system devised for the purpose of assigning best-suited men to billets where, with training, they can fill a PO's billet (as far as professional duties are concerned) until rated?

Sorry to have to bother you, but we have exhausted all our local sources.—H. T. D., YN2, USN.

• *There is no Navy directive nor manual which provides for the assignment of seamen by NJC once they have reported aboard ship, although NJC codes are taken into account when assigning men to a particular ship in which insufficient strikers are available.*

Assignment of SNs and SAs to divisions within a ship or station is at the discretion of the skipper or his representative, such assignments usually being dictated by existing manpower needs. Thus if you need deck hands, SNs and SAs are your meat; if you need a striker for a particular job and find a good prospect among your own non-rated men who can be spared, he should be given a chance at the job. The Enlisted Classification Record page and Navy Occupation and Training History page provided in each service jacket are intended as a guide in assigning the right man to the right job, both when he first reports aboard and when personnel losses leave vacancies to be filled.

In answer to your second specific question: a man assigned as a general deck hand who is in all respects eligible, may be recommended for and given an examination for advancement to a rating other than in the deck group, provided it is within the normal path of advancement for a seaman. The normal paths of advancement are outlined in the "Manual of Qualifications for Advancement in Rating" (NavPers 18068).

Your third question can, perhaps, best be answered by referring you to the introduction to the "Manual of Enlisted Navy Job Classifications" (NavPers 15105 Revised), which explains the assignment of NJC numbers and the utilization of codes so assigned.—ED.

Eligibility for Navy Retired Pay and Social Security Benefits

SIR: It has always been my impression that a member of the naval service could retire and while receiving retired pay could work in a civilian job, thereby qualifying for social security benefits.

However, page 62 of the *Rights and Benefits* (NavPers 15885) pamphlet has what would seem to be a different version: "But remember, you cannot draw Navy retirement pay and be eligible for Social Security benefits at the same time."

In view of this, must an employed retired man pay Social Security taxes on his wages if working in a covered industry, or does some provision of the law excuse these payments if the man can never draw benefits?—E. E. D., LCDR, USN.

• *Your first impression is substantially correct, that is, you can draw both Navy retirement and Social Security benefits, but if you do, the Social Security credits must be earned by you and may not be based on the same period of military service for which you are receiving Navy retirement pay.*

In discussions of retirement and Social Security benefits, confusion often arises from the fact that, under current law, it is possible for a serviceman to earn Social Security credits by virtue of his military service. But, he can only count such service for Social Security if he does NOT *count it for military retirement. The law provides that in cases where payments are payable under the Navy retirement system for a period based in whole or in part on a period that is also covered by Social Security wage credits, Social Security benefits based on such wage credits are* NOT *payable either to the individual involved or to his survivors. This bar applies to disability as well as non-disability retirements and also to cases in which retired pay is waived by the individual concerned.*

The sentence you quoted from "Rights and Benefits" (NavPers 158-85) is intended to point out that you cannot draw both retirement pay and Social Security for time you have served in the Navy, although much of your Navy time is creditable for both. In other words, if the Social Security benefits are creditable ONLY *on the basis of your Navy service, you can choose to receive either Navy retirement pay or Social Security, but not both.*

BUT, if you are eligible for Navy retired pay and if you have earned or can earn enough credits FROM CIVILIAN SOURCES *to make you eligible for Social Security benefits, then you may draw benefits from both sources. (Social Security "Old Age Pensions" do not begin until you reach 65.)*—ED.

Bowling Team Practice

SIR: I would like to find out if bowling is considered a varsity sport in the same sense as baseball and basketball. If so, why do the members of a regular bowling team have to pay a fee out of their own pockets to roll practice games, while baseball and basketball teams are supported by money from the station recreation fund?—R. J. H., AD2, USN.

• *The Chief of Naval Personnel does not designate any sport as "varsity." This is a local method of administering the Special Services program. The extent to which local recreational activities are financed is determined by the local command. Perhaps arrangements can be made with the local Special Services Officer for financing practice.*—ED.

Age Limit for WO Appointments

SIR: What are the thoughts behind the establishment of the age limit at 39 for appointment of CPOs and PO1s to Warrant officer? It would appear to me that such a rule places a penalty against maturity and experience in some instances and sometimes works an injustice. For example, I have 13½ years' naval service and am 41 years old. With the exception of making CPO and a $30 a month raise, it appears that I've reached the end of my advancement in the Navy.—W. H. W., HM1, USN.

• *The age limit for appointment to warrant grade is actually 40 years instead of 39. The age of 39 for eligibility allows for the one year required to appoint many of those selected. It is realized that the establishment of any age requirement will eliminate many otherwise well qualified candidates.*

Age limits for all officer procurement programs are established only after careful study and planning, and are considered to be in the best interest of the naval service. Many factors must be considered when determining age requirements, such as age of contemporaries and service potential (both from the standpoint of physical qualifications and eligibility for retirement).

The age limit for appointment to warrant grade was, for many years, 35 years of age and was only recently raised to 40 years for those persons originally enlisting prior to 30 Sep 1945. Practically all career enlisted men begin their career prior to reaching the age of 20 and as a result most of them have the necessary 20 years' service for retirement before reaching the age of 40. Thus, under the Warrant Officer Act of 1954, many appointees are eligible for retirement as a warrant officer as soon as they are appointed.

All rules and regulations are predicated on what is best for the service and the majority of personnel. Regardless of what standards are set, there will always be exceptions.—ED.

Aviation Greens

SIR: *U. S. Navy Uniform Regulations* states that the aviation winter working uniforms for chiefs and officers, "shall be made from forestry green woolen or worsted fabrics . . ." No other specifications as to shade of green are given.

In the past there has been a noticeable difference in the shade of green used in most Navy aviation uniforms and those worn by Marine Corps officer. However, I have recently been informed that the Marines are now allowed to wear the same shade of green as naval officers.

Does the same hold true in reverse? May naval officers and chiefs wear greens made from the Marine cloth?—A. J. P., LT., USN.

• *Indeed they may. In fact, the standard color of the naval aviation green uniform is now the same as that used in Marine officers' green uniforms. The change in shade of green is actually very slight, and it is not to be construed as making existing stocks of fabrics and uniforms in the present shade obsolete or non-regulation. This change is reflected in the specification for the aviation green uniform. Mention of the slight color change is not included in "Uniform Regulations" since those regulations contain only a general description and the new shade falls within the description already in use.*—ED.

ONCE ONLY A NUMBER, *PC 618* is now *USS Weatherford*. She takes her name from a Texas town. The submarine chaser operates out of Key West, Fla.

Permanent or Acting Appointment?

SIR: I was rated CPHM(A) on 1 Apr 1944. On 1 May 1945 I received an appointment to CPHM. In November 1950 I wrote to the Bureau requesting a certificate of appointment to CPHM(PA) in accordance with BuPers C/L 12-50. I received a certificate of "Appointment to Pay Grade One"—not a permanent appointment certificate. The letter accompanying the certificate stated that the term "Permanent Appointment" was discontinued from 16 Jun 1944 to 1 Oct 1949 and the term "Appointment to Pay Grade One" had been substituted.

BuPers Inst. 1430.7A Ch-1 of 8 Apr 1955 states in para 13 (b) that personnel appointed to pay grade E-7 on or before 31 Dec 1950 may be recommended for Permanent appointment in accordance with Art. C-7209, *BuPers Manual*.

My question is this: Am I entitled to an appointment as "Permanent Appointment" rather than to Pay Grade One?—J. F. R., HMC, USN.

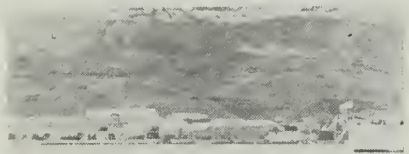
• Prior to the enactment of the Career Compensation Act of 1949, chief petty officers were carried in separate pay grades to differentiate between "acting" and "permanent" appointments. Chief petty officers, acting appointment, were carried in pay grade 1A and CPOs, permanent appointment, were carried in pay grade 1. On 16 Jun 1944 the term "Appointment to Pay Grade One" was substituted for the term "Permanent Appointment." Notwithstanding this substitution of terms, the action of appointing personnel to pay grade one in fact constituted a change to permanent appointment status. Personnel so appointed who served continuously in the naval service, without a break in service of more than three months, retained their permanent appointment status and further action to establish such status is unnecessary.

All CPOs, acting and permanent, are now carried in the single pay grade E-7. Paragraph 13(b) of BuPers Inst. 1430.7A (CH-1), which states in part that "Personnel appointed to pay grade E-7 on or before 31 Dec 1950 may be recommended for permanent appointment . . ." applies to personnel who were appointed to CPO, acting appointments, on or before 31 Dec 1950 and who are currently holding acting appointments.—ED.

Time-in-Rate for CPO

SIR: I made first class on 16 May 1955. Will I be eligible to take the Fleet-wide exam for chief in February 1958, or will I have to wait until 1959 before I'm considered as having three years in rate?—D.M.F., RD1, USN.

• *So far as time in rate is concerned, you would be able to take the exam in February 1958. BuPers Inst. 1418.7B specifies 16 June as the terminal eligibility date to which service is computed for advancement to pay grade E-7. Figured on that basis, your NavPers 624 would indicate three years and one month of service in pay grade E-6 when 1958 tests are held.*—ED.



Salutes and Cover

SIR: How about listing for me the chapter and verse of whatever regulations forbid masters-at-arms to wear their hats in messing spaces during meal hours and in places where divine services are being held?

I also wonder if a group of men, properly covered, who are standing in a chow line beneath a deck awning or canopy should salute during a "colors" ceremony? And are these men considered to be in ranks?—P. V. F., QM1, USN.

• *The answer to your first question may be found in "U. S. Navy Uniform Regulations,"* Article 0113(5): *Personnel on Duty to Remain Covered.—An officer or enlisted man in a duty status and wearing side arms or the pistol belt, shall not remove his cap or hat indoors except when entering a space where a meal is in progress or divine services are being conducted." Thus, when you're in a duty status and wearing side arms or the pistol belt, you do not uncover even in wardroom country, unless a meal or church services are in progress. If you are covered, however, and address (or are addressed by) an officer you must salute, even though the officer may be uncovered.*

The procedure for rendering honors at morning and evening colors may be found in "U. S. Navy Regulations," Articles 2106 *and* 2107, *"Honors to National Anthems and National Ensigns."* (*Mess lines are not considered formations for the purpose of these articles.*) *Each individual in the line who is out-of-doors should come to attention and salute the colors until "carry on" is given. If a master-at-arms or someone else in a duty status is in charge of the mess line, he may order "attention" and render the salute for the group—but unless this is specifically provided for aboard your ship, you'd do well to stick to the letter of the regulations.*

By the same token, since the regulations make no allowances for canopies and deck awnings (and they are of such a temporary nature anyhow), you'd be stretching a point in using them as an excuse for not saluting.—ED.

Steady Steersman

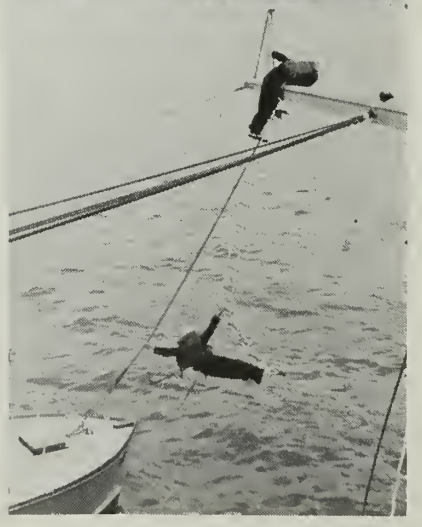
SIR: I don't know about you, but I believe the following is worthy of comment:

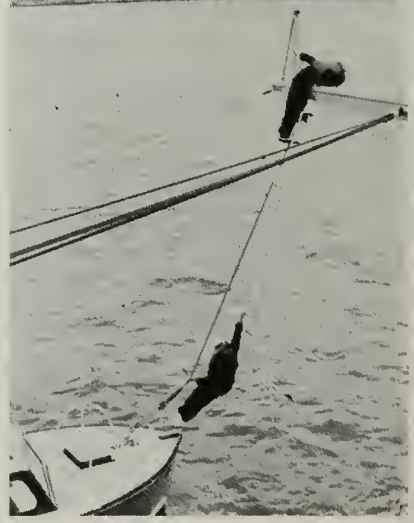
On 13 Feb 1956, USS *Tripoli* (T-CVU 64) was scheduled to refuel from the oiler USS *Salamonie* (AO 26). *Tripoli* came alongside the oiler at 1043 and reduced speed to maintain station. During the next few minutes several speed changes were made. At 1052, 101 turns were rung up on both engines. The Bell Book of *Tripoli* and the Quartermaster Note Book confirms that no more speed changes were made for four hours, until 1452 when speed was increased to depart from alongside the tanker.

No records are claimed for speed in refueling, and *Tripoli* readily admits that an endurance contest for refueling is not necessarily a worthwhile undertaking. However, we do submit that four hours alongside a tanker at sea with no speed changes must be a near record if not an all-Navy station keeping record. If anyone can better it, speak up.

It is admitted that weather conditions were favorable, fueling speed—12 knots, fueling course — approximately down wind, wind—15 knots, sea—slight. (for the benefit of non-seafaring readers, it might be well to point out

TO THE GIG—Over the boat boom and down the ladder to gig made fast by guesswarp to USS New Jersey (BB 62) go ship's boat coxswain and assistant.





that in refueling operations, the carrier maintains station on the tanker.)

In claiming this record, *Tripoli* gives full credit to her steersman and her engineering department and full credit to *Salamonie*, for without a perfect performance of wheel, throttle and steam control by both the carrier and tanker, it would have been impossible to stay alongside without speed changes.—E. R. E., CO, USS *Tripoli* (T-CVU 64).

• *An excellent performance and one that will be surpassed by few ships. We understand, however, that several ServPac ships steamed alongside while fueling or consolidating without speed changes for a considerable length of time. No doubt we will hear from them.*—ED.

Duty in Submarines

SIR: I am planning to reenlist in the Regular Navy after serving a tour of duty in the Reserves in the TAR program. Could you obtain the answers to the following questions: (1) Under Option 3 of BuPers Inst. 1306.25B, would SS, SSN, SSK, and SSO be considered four choices of sea duty? (2) What ports in the Continental U. S. have submarine squadrons?—R. M. K., YN2, USNR.

• *(1) The answer to this question is: "Yes—technically speaking." However, the choices are so narrow that you may miss out completely if there is no requirement for your rating in the Submarine Force. (2): Submarine Squadrons Three and Five are located in San Diego, Calif., and Submarine Squadrons One and Seven are in Pearl Harbor, Hawaii. There are also submarine squadrons in New London, Conn., Norfolk, Va., and Key West, Fla.*—ED.

Tribute to Former CPO

SIR: I have just come across a copy of your magazine for October 1955. In it I read a letter from a former chief who wanted to return his wartime pay because he considered it a privilege to have served his country in World War II. I believe I speak for the entire Navy when I say that our hats are off to this man.

His action is so touching and gallant that I plan to use his example as an inspiration to every company of men I lead through boot camp here at Bainbridge. For a splendid tribute and a fine deed, please thank the chief, whoever he may be—L. H., SH1, USN.

• *We were very much interested in your reaction to this letter and agree that it is an inspiration to all of us. This chief, who preferred to remain unnamed, has demonstrated a kind of patriotism which is appreciated and approved by all Navymen, recruits and old timers alike. And he has shown once more that selflessness and love of country are not as "old fashioned" as one might think.*—ED.

Ole Miss Calls a Nostalgic Muster of Navy's Battlewagons

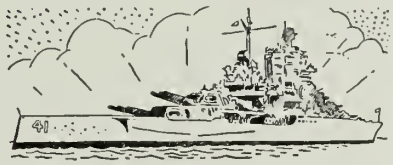
SIR: Seeing *Mississippi* at anchor in Hampton Roads the other day brought back memories of the old days in Long Beach when the battleships were lying offshore. *Mississippi* looked deserted out there by herself.

The last of our old battleships still in commission, she is technically rated as an auxiliary, but to many of the old hands, she is still a battleship.

These reflections inspired the attached poem, which I thought you might consider for publication in ALL HANDS.—K. J. Slamon, Chief Ship's Clerk, USN.

The Survivor of Battleship Row

All alone in the stream she rides,
This valiant lady in gray,
Swung to and fro by the transient tides,
The ghost of a bygone day.

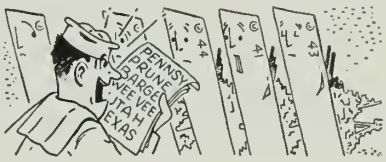


Gone are the others of Battleship Row,
With Cincus and ComBatFor,
And ComBatShips and the rest we did know,
Of the nautical days of yore.

What tales we could tell of days slipped away,
What historic scenes did unfold!
But she is still here to remind us today,
Of the glorious days of old.

Where are the others we cannot see,
Why aren't their voices heard?
Let's have a muster, a nostalgic sortie,
Boatswain's Mate, pass the word.

PENNSY *and* PRUNE BARGE *and* TENNESSEE,
WEE VEE *and* OKLAHOMA,
ARKY *and* UTAH, MISSISSIPPI,
WYOMING *and* ARIZONA.
NEW YORK, TEXAS, *and Old* NEVADA,
IDAHO *and the Big* MARY,
NEW MEXICO *and the* COLORADO,
Complete the elite coterie.



Speak up! Speak up! Are none of you left?
How can we conceal our remorse?
But one whistle echoes, sounds mournful, bereft,
And tells of the Battleship Force.

It's Old MISSISSIPPI: *her voice now rings out,*
Resounding from shore to shore,
"I know where they've gone, and all about,
The fate of nearly a score.

"They've all gone to scrap, or down in the deep,
To lie with their ancient forerunners,
Or resting as shrines or in mothballs keep,
But I still train Navy gunners.

"I'm still in commission, performing my mission,
A part of the Fleet and, I vow,
I'll ever remain, in Navy tradition,
The Survivor of Battleship Row."

• *Thanks for a nostalgic reminder of the battlewagons of the past, and for a fitting tribute to* Mississippi, *still going strong.*—ED.

Reenlistment Bonus

SIR: I enlisted in the Navy in December 1939 for six years. In December 1945 I reenlisted for six years. Then in December 1951 I reenlisted for four years and took reenlistment money for the six years I had just completed. On 13 Dec 1955 I reenlisted for four years and my reenlistment bonus was figured as a second reenlistment. Was this correct?—C. A. L., HMC, USN.

• *Yes, it was correct. A reenlistment entered into on or after 1 Oct 1949, the effective date of the Career Compensation Act of 1949, for which a reenlistment allowance was received, must be counted as a first reenlistment in determining the number of a reenlistment for reenlistment bonus purposes under section 208 of the Act.*

Since you received a reenlistment allowance incidental to your reenlistment in December 1951, such reenlistment must be counted as a first reenlistment in determining that your reenlistment in December 1955 is a second reenlistment for the purpose of computation of the bonus.—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• *59th Seabees*—The fourth annual reunion will be held 3, 4, and 5 August at the Chamberlain Hotel, Old Point Comfort, Va. For information contact O. W. Nichols, Long Beach, St. Leonard, Md.

• *82nd Seabees—519 CBMU*—The 10th annual reunion will be held 5, 6, and 7 October at the Hotel Shamrock, Houston, Texas. Write to James Greenwood, 147 Bathurst Ave., North Arlington, N. J.

• *93rd Seabees*—The seventh annual reunion is scheduled for 31 August and 1 September in Evansville, Ind. For further information contact Darle Christy, 715 West 36th St., Kansas City 11, Mo.

• USS *Enterprise* (CVS-6)—The third annual reunion will be held in New York City on 1, 2, 3 September. For information write E. J. Knapp, 59 E. 4th Street, Corning, N. Y.

• Class 12, OCS Newport, R. I.—A reunion for all graduates commissioned September 1953 will be held in New York City, on 29 September. For additional information contact LTJG W. A. Glaser, 1312 Jefferson St., Gretna, La.

• USS *Portland* (CA 33)—A reunion will be held at the Mayfair Hotel, St. Louis, Mo. on 18 and 19 August. For additional information write John W. Ooton, Box 625, Larned, Kansas.

• USS *LCI (Mortar)* 673—Former crew members interested in holding a reunion, with time and place to be decided by mutual consent, should contact John H. Norton, 1559 Post Road, Fairfield, Conn.

• *Second Marine Division*—A reunion will be held at the New Yorker Hotel in New York City, on 20, 21 and 22 July. For additional information, contact William E. Seidensticker, 100 North LaSalle Street, Chicago, Ill.

COMO, Rank or Title?

SIR: We have just had quite a discussion concerning whether commodore is a Navy rank or merely a title. My idea is that the rank does not exist, but that the title is applied to a junior rear admiral or a senior captain.—O. H., SD1, USN.

• *Commodore is both a Navy rank and a title. So far as the rank is concerned, Article* 1302 (2), *"U. S. Navy Regulations"* (1948), *states that "the grade of commodore on the active list of the Navy is restricted to times of war or emergency." The title, however, is commonly applied to officers in command of squadrons or divisions of a fleet.*

Historically, there are at least two supposed origins for the name "commodore." One source states that it is supposed to be derived from the Spanish "Comendador," meaning one having command over others. Another source states that the rank was first created by the Dutch during a war with England in 1652. *It seems that the Netherlands was short of admirals and also short of money. By creating the new rank, the Dutch obtained their needed flag officers at the cost of only half the pay of admirals.*

Whatever the source of the name, the rank does not appear in dictionaries of the 17th century. It was not until 1862 *that the rank was established in the U. S. Navy by law (in July of that year* 18 *commodores were created on the active list). But long before that date the title was used by the British, and U. S. Navy captains, commanding or having comanded a squadron were recognized as commodores and flew a broad pennant distinctive of that rank (although they were never commissioned as such).*

Commodore was again abandoned as a rank on the active list in 1899, *only to be reestablished in* 1943 *for temporary service in time of war or national emergency.*—ED.

Training Course Discrepancy

SIR: Recently, in reading the Navy training course *Yeoman* 1 *& Chief* (NavPers 10241-A), I discovered what seems to be a discrepancy. Chapter five, page 94, states that an original only of page five (Gunnery Record) is to be made, while chapter six, page 111, states that the carbon copy of page five is to be forwarded to BuPers. I would appreciate a clarification of this. —C. A. B., YN2, USN.

• *In the course you list, (NavPers* 10241-A), *page* 94 *was correct and page* 111 *wrong. However, that text of "Yeoman I & Chief" has now been replaced by a new edition, NavPers* 10241-B. *This new edition omits any detailed discussion of the Service Record because that part of YN training has been moved to "Yeoman* 3 & 2" (*Nav-Pers* 10204-B). *The new NavPers* 10204-B *mentions only the original of page five.*—ED.

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Yes, Dallas was a DD, But She Didn't Hail from Texas

SIR: During a recent discussion with several members of the Navy I stated that I had spent some time on the destroyer USS *Dallas* (DD 199) during the invasion of Africa in 1942. Immediately one of the sailors categorically stated that never had a destroyer sailed with that particular name.

A Marine who was in on the discussion said that ALL HANDS could answer any question related to the Navy past and present—so I'm turning to you for aid. Can you verify my statement that there was a USS *Dallas* in the destroyer category?—L. L. V. A., MSgt, RA.

• *When your letter came in, we thought, "the sailors are looking down his throat—they know that* Dallas *is the name of a city, therefore* USS Dallas *must be a cruiser." Then, as we always do, we checked to make sure—and found that* Dallas WAS *a destroyer, one of the old "four pipers," according to the Navy Department's* 1938 *Ships' Data Book.*

She was a 314-*foot vessel, with a displacement of some* 1300 *tons and a designed speed of* 35 *knots. Laid down on* 23 *Nov* 1918, Dallas *was launched on* 31 *May* 1919 *and was finally sold by the Navy in November* 1945.

Her name (which was changed from Dallas *to* Alexander Dallas *on* 31 *Mar* 1945) *came from CAPT Alexander J. Dallas,* USN (1791-1844). *Captain Dallas entered the Navy as a midshipman in* 1805, *and is credited with firing the first shot in the War of* 1812—*in the engagement between* President *and* Belvidera, 23 *Jun* 1812. *His naval career also included: command of* Spitfire *in operations against Algiers* (1815) *and of* John Adams *in* 1824 *operations against pirates in the West Indies.*

From 1832 *to* 1835 *the captain was employed in laying out the Pensacola Navy Yard; from* 1835 *to* 1837 *he commanded the West Indian Squadron and cooperated with General Winfield Scott in suppression of the Seminole Indians. Rounding out his career, Captain Dallas was in command of the Navy's Pacific Squadron when he died.*

STRANGE NAME FOR DD—Old *USS Dallas* (DD 199) sounds like she could be a cruiser. She was named for CAPT Alexander J. Dallas, USN (1791-1844).

Since you were on board Dallas *during the African invasion, Sergeant, perhaps you took part in the following action (which we think makes a pretty good story):*

Final plans for the North African invasion called for the Northern Attack Group (which included Dallas*) to land a force of some* 9000 *soldiers near Mehedia at the mouth of the Sebou river, their objectives being to gain control of the river, to take possession of Port Lyautey and its airport and a second airfield between Mehedia and Rabat.*

The original scheme also called for a night-fighting raider force to land with the first wave and take over an outmoded citadel called the Kasba—and a number of modern guns and troops—situated on a plateau above the river's mouth.

Plans were changed, however, with another group being assigned to take the citadel; the raiders were to go aboard Dallas, *which was expected to make her way up the Sebou and put them ashore in a good position to capture the Lyautey airport.*

The net boom had not been cut on schedule. The team which had been assigned to capture the fort went after the airfield instead, leaving the gun emplacements in the vicinity of the fortification to take potshots at the ships lying off the beach. Indeed, the entire landing program was behind schedule—and the enemy had received warning of the attack early enough to rush reinforcements to the area.

Twice Dallas *tried steaming in to ram the net boom, but was driven off by shore batteries.*

Finally, on 10 *November the boom was cut and* Dallas *headed upstream against an ebbing tide. Unfortunately the net boom had been cut on the shoal side of the channel, so* Dallas *had to ram it anyway to traverse the deep side of the channel. But, to quote from Volume II of Morison's* History of Naval Operations in World War II, *"Before reaching that point she ran aground and began to pound in the swell that washed in from the sea. By turning up maximum revolutions, she just moved through the soft mud; and the Kasba selected that moment to open fire. A big shell hit the water dead ahead as* Dallas *approached the boom, and another lifted her stern off the mud; she turned up* 18 *knots, hit a point on the boom midway between two floats, swept it aside, and promptly reduced to* 15 *knots to ascend the river."*

The slow trip up the muddy river was complicated by potshots from various French artillery pieces, a couple of merchantmen which had been scuttled in an attempt to block the channel, and an ebbing depth which had the stripped-down can plowing a furrow along the bottom. Despite these stumbling blocks, Dallas *made her objective and offloaded the raiders. Fortunately, the French had abandoned the airfield, so by* 1030 *(approximately eight hours after* Dallas *started her run up the river after passing the boom) U. S. planes were using Port Lyautey field.*—ED.

Submitting Request for Shore Duty

SIR: I would like to know if there is any authority that states a man can submit a request for transfer to Bureau shore duty three months before his normal tour of duty aboard ship ends. If there is such an authority, what is it? —C.L.H., BT1, USN.

• *No. A man may apply for Bureau shore duty when he meets the eligibility requirements (which are outlined in BuPers Inst.* 1306.20*B*). *He may not submit his card in advance.*

The only policy directive issued by the Chief of Naval Personnel which establishes a minimum tour on board any specific type of ship, is the rule that men must serve on board newly commissioned ships for six months before being eligible for transfer.

Personnel serving in overseas based non-rotated ships are governed by overseas shore duty rules. Men applying for Bureau shore duty are ordered ashore when they reach the top of the SDEL. The period of service in your current ship has no weight in the matter.—ED.

Signposts for Sailors

FROM THE TIME the first reed boat bobbed along the current of the Nile—or perhaps even earlier—until a few short years before World War II, sailors everywhere depended almost entirely on lights to guide them safely into port. Even today, despite the startling advances in electronics, more than 400 manned lighthouses and lightships in United States coastal waters provide the first intimations of home to the returning mariner.

Radar, loran and various forms of electronic devices are rapidly taking the place of these more substantial aids to navigation, but it will take a long time, if ever, for these gadgets with empty glass tubes for hearts and wires for muscles to replace entirely the lights and their keepers.

Chances are, old-timers of the bulrush-and-reed school of thought shook their heads sadly when wood and charcoal threatened a technological upheaval centuries before the Christian era, as their descendants did when sperm oil gave way to kerosene, and kerosene to electricity.

The history of the silent sentries in the United States began in 1716 with the first lighthouse in North America built at the entrance to Boston Harbor by the Province of Massachusetts. Shortly after this, several other lighthouses were built by the Colonies. On 7 Aug 1789, Congress authorized maintenance of lighthouses and other aids to navigation at expense of the U. S. government.

On that date there were 12 lighthouses maintained by different states. These, together with four others completed later, were ceded to the federal government by the states.

Since then, the generations of keepers and their lights remained under civilian direction until 1939 when the Lighthouse Service was discontinued and jurisdiction over aids to navigation was placed in the hands of the U. S. Coast Guard.

Today, the coastlines of the United States are dotted with lighthouses, lightships, fog signal stations, radiobeacon stations, loran transmitter stations and light attendant stations. Nearly all lightships are equipped with radar to locate approaching vessels and check on accuracy of their own anchorage.

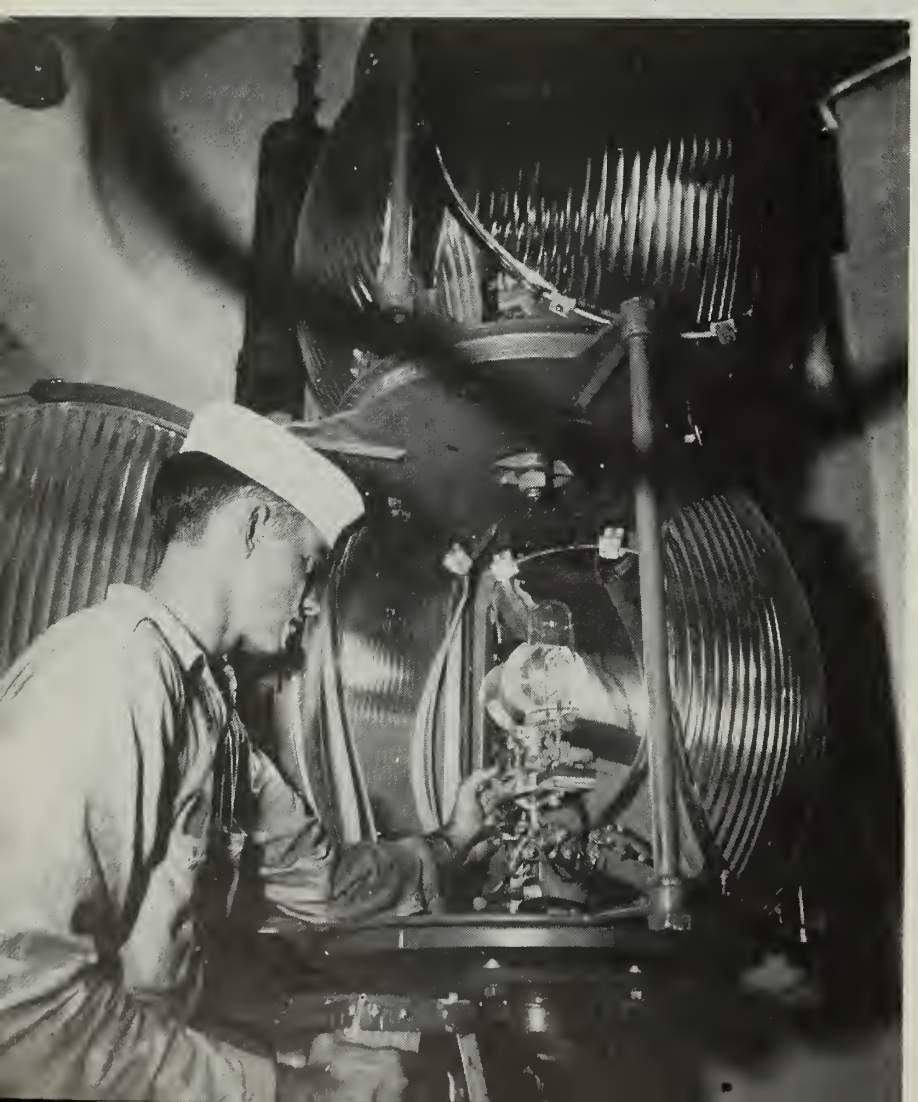
To identify a major light in the U. S. today when your approximate position is known, all you need is a stop-watch or a clock with a second-sweep and the Coast Guard's *Light List*. This navigator's bible contains full information about every lighted and unlighted aid to navigation in American waters.

It was different in the old days. When the light consisted of an open flame, such as a wood or coal fire, there was no way of producing a sharp beam or an intermittent flash. All lights looked alike, and a light could mean only one of two things—a harbor, or danger. Unless he knew the coast and the exact location of the light as well as his own position, a skipper had no way of knowing its meaning or its location.

This condition was eased by adoption of twin towers, providing a combination of lights. Before this trend became too pronounced, the present system was adopted. Today, the beam you see is the product of three elements: the device which provides the fuel or energy that produces the light; the lens which concentrates and magnifies the light into a solid beam; and finally, the mechanism which drives the rotating lens and directs its speed.

The flashing effect is usually obtained by revolving the lens in conjunction with gadgets known as flash-panels. The accurately timed twinkling characteristics thus obtained create the illusion that the light itself is going off and on to produce its identification characteristics. In some instances electric bulbs do flash

WATTS THIS?—Coast Guardsman inserts new 1000-watt bulb in St. John's light in Florida. Mirrors reflect light of 250,000 candle power visible 15 miles.



off and on, but they are the exceptions rather than the rule. In the old days, clockworks, operated by weighted ropes that ran the whole length of the interior of the tower, were used to revolve the lens and to drive the timing mechanism. These devices are still maintained in a standby condition in the event there is a breakdown of electric current.

Lights are also identified by their use of red or green panels. In addition to serving as identifying characteristics, these colored panels are used to throw shafts of light over specific sectors within range of the light. For example, if shoals or reefs lie in the northeast sector of a light, they can be spotted through the use of red colored glass in the northeast panels of the light. In this manner also, with glass sectors, channel turns may be marked red or green.

Unhappily, the effective range of a color beam is comparatively short. Red or green colored shades reduce the candlepower of a white light by approximately 80 per cent.

In the daytime, lighthouses use other means of identification. Most important, of course, is the matter of location and style of construction. Lighthouses have one of four general types of construction: a cylindrical masonry structure; a cyclindrical tower rising from a square house; a cylindrical caisson structure; and a spider-like skeleton, iron structure.

Light towers have additional means of identification, such as the number of balconies near the top of the light; the tower's cylindrical, hexagonal, or octagonal design; the pattern of painting, from pure white to red, to black, or striped, or banded, or rectangular combinations.

Nothing that has to do with the appearance of a light tower happens by chance. It's all a matter of carefully planned design for the purposes of easy identification. Lights that flank channels, for example, indicate the side of the channel they mark by being painted red if they stand on the right side, or black if they are on the left side of "good" water.

Identification of a fog signal is made in much the same manner as with lights. Each fog signal station is assigned a signal consisting of a definite number of blasts recurring at stated intervals. A definite time is required for each signal to perform a complete cycle of changes. The various types of fog signals also differ in tone, and this too, helps in the recognition of various stations.

NIGHT LIGHT—Amelia Island light located at the mouth of St. Mary's River, Fla., glows like a guiding star 107 feet above water. Tower was built in 1839.

Where conditions make it impossible or impracticable to build a permanent structure, lightships, which might be considered as floating lighthouses, are used. They mark the approaches or entrances to many of the principal harbors for both transoceanic and coastwise traffic.

The lights, fog signals and radiobeacon signals on lightships are given various characteristics for purposes of identification, just as in the case of lighthouses. Like the lighthouses, lightships are described briefly on the charts and in detail in the Light Lists.

U. S. lightships are self-propelled ships, able to proceed to and from their stations under their own power. If forced to slip their moorings and get underway in heavy weather, they can ride out the storm and work their way back to their stations under their own steam.

It is a written as well as an unwritten law that no lightship may give up its station so long as it can remain afloat and under control until a relief vessel has taken its place.

At times, this takes a bit of doing. Here's a description of one storm experienced by the lightship *Swiftsure Bank* off the coast of Washington:

"When the watch went on at 8 p.m., the glass was 29.04 inches. The wind began a steady whistle through the shrouds and ratlines. It was blowing close to 60 miles an hour. Seas 30 feet high plunged into and over the bow.

"By midnight, the barometric pressure was 28.80 inches. The wind came shrieking and snarling up out of the south, at times more than 100 miles an hour.

"The noise of the wind and the sea at such a time beggars description. The water writhed and steamed like a bowl of boiling milk. The air was so full of tiny particles of water from the waves that we could barely see the bow of our ship.

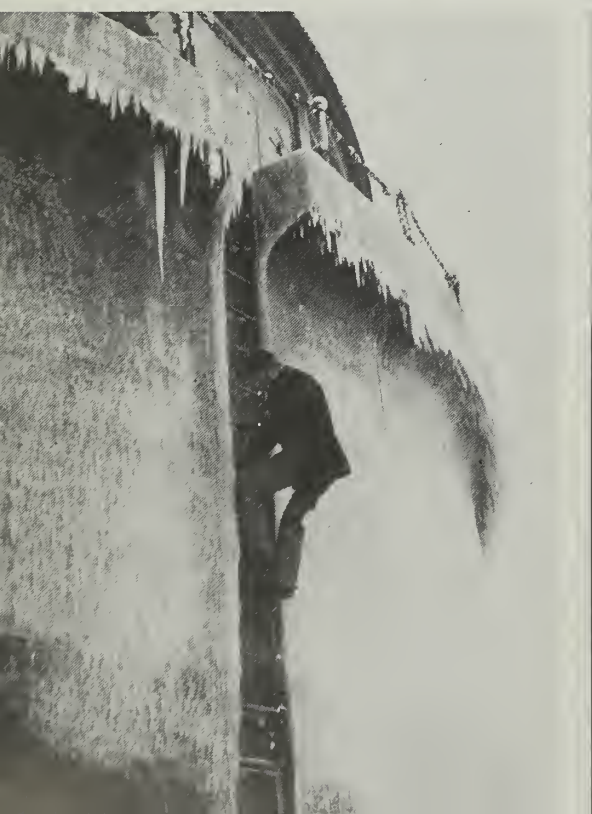
"The foghorn was blowing, but one could scarcely hear it. Screaming fiends seemed to be racing along the outer deck. To add to the confusion, objects broken loose by the wild corkscrew wallowings of the vessel set up an unearthly clatter as they raced about in the alleys and on the decks below.

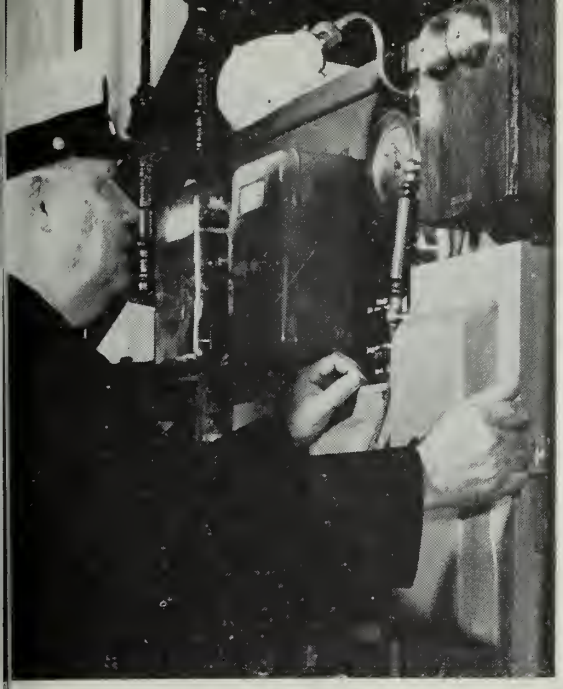
"Soon the waves broke over the pilot house. The water would force itself into the ship through every fissure, no matter how small, even squirting in through the keyholes of the outer cabin doors in the pilot house. It was impossible to sleep.

"The storm receded as rapidly as it came up. By 1 a.m., things began to taper off. By dawn it was almost calm."

Storms, of course, form a large part of lighthouse lore. Most of it is concerned with the strength and power of the sea. On the Atlantic Coast, for example, the present 97-foot tower on Minot's Ledge is often completely enveloped by masses of water from breaking surf and an earlier light on this ledge was swept away more than 100 years ago. Then, too, there is the story told by the keeper of Trinidad Head Light on the coast of Oregon. As he watched the storm from his lantern 196 feet above high water, he could see the near-by Pilot Rock light

LIGHTS OUT—Crew of Stannard Rock light wait for pick up by Coast Guard boat as ice forces abandonment during winter. *Lower Left:* Last man descends icy ladder. *Right:* Boat heads for Coast Guard Cutter almost hidden by swell.





LAMP LIGHTER—Keeper of Alcatraz light turns on the juice. *Right:* Assistant relaxes with family while living at light.

196 feet above high water, he could see the near-by Pilot Rock light engulfed again and again by waves that swept over it. Then a wave, larger than the rest, struck the cliffs at the base of the light. It seemed to rise in a solid wall of water to the level of the lantern and hurled its spray completely over the tower. The shock of the blow stopped the revolving of the light.

Since colonial days when the first lighthouse was erected as a landfall for Boston in 1716, a robust tradition of storms, loneliness and rescues at sea has centered about the men and women who helped keep the lights burning.

There are many famous lighthouses, but perhaps one of the best known is the one at Navesink, N. J. At one time, it was known as the "brightest light in the world."

For many years, Navesink was an experimental station for the latest ideas in lighthouses. It was here in 1841 that the first Fresnel lens was installed in a U. S. lighthouse.

Even with the conventional oil lamps of that day, the Fresnel lens gave out a remarkable light, but in 1898 the whole world heard about the Navesink light when an electric arc lamp with an incredible 25,000,000 candlepower was installed.

The new light was, of course, welcomed by men at sea—with several skippers reporting that they had seen the gleam in the sky from a distance of 70 nautical miles. However, residents of the town of Navesink took a dim view of "the world's most powerful light." The first night the light was turned on, more than one inhabitant was startled from his bed or ran from his home in terror. Even after they became more accustomed to it, the powerful beam penetrated their homes and disturbed their privacy and sleep.

It wasn't easy to get used to, so finally the government blackened the glass on the side of Navesink which faced the land and eventually the arc light was withdrawn as "unnecessarily bright" and replaced with an incandescent light with a mere 9,000,000 candlepower.

With the passing of the years, the illumination was again cut down until today it is a mere 5,000 candlepower. Navesink's days of glory came to an ignominious end in 1949 when the keeper was replaced with an automatic light. The former "brightest light in the world" still burns nightly but the people of Navesink no longer care if the windows are blackened or not.

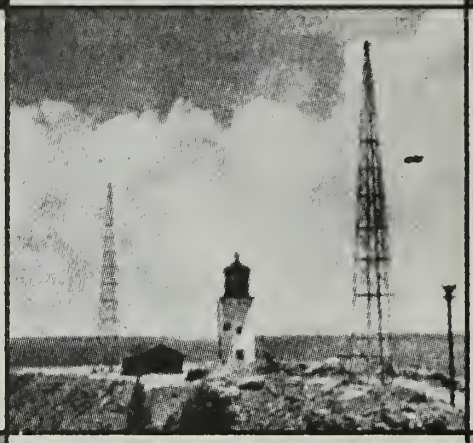
No matter whether Navesink's candlepower is 25,000,000 or 5,000, whether it is maintained by a keeper or is automatic, this light and its companions flash their friendly characteristic signal as a reassuring signpost for navigators from all over the world who travel the sea.

'FLOATING LIGHTHOUSES' guide the way where permanent structures are impractical. Here, a light ship off Cape Henlopen, Del., rides rough Atlantic.

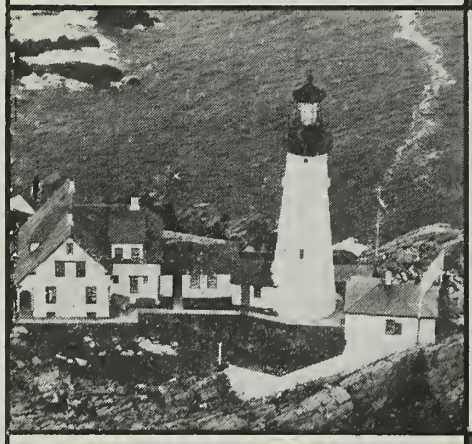
FAMOUS U. S

Scotch Cap Lighthouse, Unimak Island, Alaska, is conceded to be one of the most isolated light stations in the service. The station was sa difficult of access that it was impracticable to arrange for leave af absence in the ordinary way. Each keeper gat one full year aff in each faur of service. During an earthquake and tidal wave in 1946, Scotch Cap Lighthouse slid into the sea and all hands were lost. A new structure was completed in early 1950.

Kilauea Point Lighthouse is located on the northernmost point of Kauai Island in the Hawaiian Islands. This important landfall light for ships bound from the Orient was built in 1913. The moving parts of the lens weigh 4 tons, and this mass turns an a mercury float, making a revolution every 20 seconds and giving a double flash of 1,100,000 candlepower every 10 seconds. Light was first landfall on first Navy flight to Hawaii in 1927.



Timbalier Lighthouse, Timbalier Bay, La., was constructed between 1854 and 1857 from an appropriation by Congress of $15,000. By February 1867 the tower was in danger of falling and workmen were sent to take down the lens. During 1867 hurricane, the dwelling, tower, and area around station were cavered with 3 to 6 feet of water. The keepers barely escaped and lived for some days in an iron can buoy. Present structure built in 1917.



Portland Head Lighthouse was started by George Washington, who engaged two masons from Portland, Maine, in 1787. While instructing them to build a lighthouse on Portland Head, Washington reminded them that the Gavernment was poor and that the materials used should be taken from the fields and shores. The old tower still stands as one of four colonial lighthouses that have never been rebuilt. The tower was completed in 1790 and lighted 10 Jan 1791.

St. Johns' Light Station, Mayport, Fla., is one of the newest aids to navigation; it began operation in 1954. The station is of a modern architectural design which includes two matching concrete block quarters buildings for the faur crew members and their families. The lighthouse is equipped with a revolving airways-type light beacon, an emergency engine generator, radiobeacon transmitting equipment, and control apparatus for the fog signal.

Cape Hatteras Lighthouse, in North Carolina, marks a very dangerous shoal which extends from the cape for a distance of 10 nautical miles. The original tower, completed in 1798, was built of sandstone. A new tower, erected in 1870, was the highest brick lighthouse in the world. It is 193 feet above the ground. A new light consists af a 36-inch aviation-type rotating beacon of 250,000 candlepower, visible 20 miles at sea.

St. George Reef Lighthouse is locoted 6 miles off Point St. George, neor Crescent City, Colif. Becouse it wos built on o rock only 300 feet wide, extreme difficulties were encountered in construction, ond 10 yeors' work wos required to complete the job. The totol cost wos $702,000, moking it one of the most costly lighthouses ever constructed. The bose of the tower is o solid block of concrete ond gronite. The light wos first disployed in 1892.

Cape Florida Lighthouse, which wos completed in 1825, wos ottocked ond burned by Seminole Indions in July 1836. The keeper ond his ossistont sought refuge in the top of the lighthouse tower where they were neorly roosted olive when their pursuers set fire to the structure. The keeper olone survived ond wos rescued loter. Although still o doytime londmork, Cope Florido Light wos discontinued in 1878 when Fowey Rock Light wos estoblished to the south.

Boon Island Lighthouse, one of the most isoloted ond dongerous stotions off the Moine coost, wos first outhorized for construction during the Wor of 1812 by President Jomes Modison. Becouse of storms, the lightkeepers were once morooned on the islond for severol weeks ond olmost storved, but were soved ot lost by the crew of o possing ship. The soilors set some food ofloot in o mockerel borrel which fortunotely drifted into o cove on the islond.

Boston Lighthouse, the first lighthouse estoblished in Americo, is on Little Brewster Islond in Boston Horbor ond wos lit 14 Sep 1716. A tonnoge tox of 1 penny per ton on oll vessels, except coosters, moving in or out of Boston Harbor, poid for maintoining the light. In 1811 the keeper ond his wife witnessed the bottle between *Chesopeoke* ond *Shonnon*, when wounded Coptoin Lowrence muttered the famous words "Don't give up the ship."

Spectacle Reef Lighthouse, Loke Huron, cost $406,000 ond is one of the best specimens of monolithic stone mosonry in the United Stotes. The lighthouse stonds on o submerged limestone reef off the eostern end of the Stroits of Mockinow. Building begon in Moy 1870. It wos plonned by Mojor O. M. Poe, who wos Generol Shermon's chief engineer on his morch to the seo. The light wos first exhibited from the structure in June 1874.

Tillamook Rock Lighthouse, 1 mile off the coost of Oregon, hos received mony botterings by violent storms. Although the lontern is 133 feet above the level of the seo, the protective gloss hos on more thon one occosion been shottered by stones hurled by giont woves. During the building of the stotion, o lighthouse engineer lost his life in on ottempted londing on the rock. Men ond equipment ore brought oboord the rock by meons of o corgo boom.

ONE OF A KIND—Tactical Command Ship *USS Northampton* (CLC 1) makes a turn in Guantanamo Bay. She is a fast moving operations-communications HQ.

Double-Docked Carriers

Trying to get two carriers into one dry dock is like trying to get the contents of a full seabag into one small locker—you just can't do it without mighty careful planning. And careful planning was a necessity when the Philadelphia Naval Shipyard received orders to put both the 623-foot USS *Monterey* (CVL 26) and the 557-foot *Kula Gulf* (CVE 108) in a dry dock which measured only 1090 feet in length. In addition, the designated dry dock—Philadelphia's No. 5—is only 150 feet wide, while the carriers have a total extreme width of 214 feet.

Still, the yard's planners had a pretty good precedent to follow, according to LT Edward J. Otth, Jr., USN, who is docking officer at Philadelphia. Back in 1946 the battlewagons USS *Tennessee* (BB 43) and *California* (BB 44) wound up double-docked on diagonal centerlines in the same No. 5 dry dock, and "the feat created a lively interest in the trade and was given wide publicity."

But two carriers, because of overhang, in addition to minimum clearance between the two ships *and* between the ships and the dock edge, presented a somewhat more difficult problem. The size of the pair made it necessary to dock them at an angle to the dock's centerline and to overlap their positions.

Yard experts decided satisfactory positions for the ships by making a scale layout of the dry dock and cardboard cutouts of the two ships, then juggling the cutouts until maximum clearances were obtained between the ships and the ends and sides of the docks. Thus it was determined that the overlap had to occur at the bows, so docking blocks were laid to hold *Monterey* at the north end of the dock with her bow pointing south; *Kula Gulf's* blocks were laid at the south end with the bow pointing north.

"Actually moving the carriers into the dock presented yet another problem," LT Otth said. "Clearances involved in positioning the vessels were boiled down to five feet or less and in some spots catwalks overhung the dock sides, while cranes had to be pressed into service as capstans.

"Even with *Monterey* held hard over to dockside at bow and stern, the space remaining for handling *Kula Gulf* was barely adequate. To bring her safely into the dock, the riggers decided to warp the ship diagonally up the dock after she was halfway across the sill."

Today the two carriers stand at ease in 20 feet of water (to preserve anti-fouling paint on their bottoms and keep the oak blocking from developing dry rot), snug but comfortable examples of what can be accomplished by careful preparation and attention to detail.

Sixteenth Century Battleship

A model of the world's first ironclad, forerunner of the modern battleship, has been presented to the Naval Academy from the people of the Republic of Korea.

It's the "Turtle Ship," a replica of the iron-covered, copper-sheathed Korean dreadnaught designed by the father of the Korean Navy, Admiral Yi Soon-Sin, in 1592.

The fleet of "Turtle Ships" was built during the reign of the Great King Sonjo (1588-1609). The fleet was responsible for the defeat of the invasion armada of the Regent of Japan, Toyotomi Hideyoshi, in repeated attacks from 1592 through 1598.

The original ship was designed to resist all methods of attack known at that time. The bottom plate or keel was copper-sheathed, 64 feet in length, 11 feet wide at the bow, 14 feet amidships and 10 feet at the stern. To this bottom plate, seven-foot copper sides were added. The hull was then covered with an iron plate in the shape of a turtle shell to make the craft impervious to shells, arrows and fire.

To increase further the turtle-like appearance, a huge carved head and

YESTERDAY'S NAVY

On 1 Jul 1946 VX-3 was put in commission at Floyd Bennett Field, N. Y., to test and evaluate the helicopter for naval use. On 7 Jul 1846 LT Rever of USS *Portsmouth* hauled down the "Bear Flag" of the insurgent California Republic at Sonoma, Calif., and raised the American flag in its place. On 19 Jul 1918 USS *San Diego* (formerly USS *California*) was sunk by a German submarine mine off Fire Island, N. Y. On 22 Jul 1824 a landing party under LT David Farragut destroyed a pirate stronghold in Cuba. On 30 Jul 1942 the Waves were first established as the Women's Reserve.

neck of a turtle were added to the bow of each warship.

The ship was divided into 24 compartments. Nineteen were used for berthing and the remaining five were set aside as storerooms. The craft was propelled by 20 oars, 10 to a side. Over-all armament of the ship was 52 guns. Ports were constructed through which archers could shoot fire arrows into enemy ships.

During the seven naval battles that took place between 1592 and 1598 the Korean Navy sank over 375 Japanese ships and captured over 50. During the last battle in November 1598, Admiral Yi was killed in action on board the flagship of the "Turtle Fleet."

Greenfish Has Twins

Seeing is believing, but this isn't necessarily the case with the Welty twins serving in the Pearl Harbor-based submarine USS *Greenfish* (SS 351). The identical twins, both fireman apprentices, have been confusing their shipmates for sometime.

The brothers, James N. and Thomas A. Welty, served for two years with Reserve units in Seattle, Wash., and San Francisco, Calif., before coming to active duty in February of this year.

While on duty with the San Francisco Reserve unit, the twins became qualified submariners on board USS *Redfish* (SS 395) and were awarded their dolphins in January of this year. The Welty twins are believed to be one of the few sets of twins serving with the SubPac.

Marine Uniform Changes

Traditional "dress blues" made of a gabardine material, stretch-type socks and a lightweight plastic raincoat, are in store for Marine Corps enlisted men.

Present plans call for a wear-test this summer of the uniform and, if the required conditions are met, it is expected to go into production in fiscal year 1958.

The new uniform is expected to give Marines a neater appearance, more comfort, and a dress uniform made of one material which may be worn year-round.

The new stretch-type sock fits any size foot, launders quickly and provides additional comfort.

A new raincoat made of nylon (vinyl-coated) or vinyl plastic material will replace the nylon-rayon coat at present in use.

A Ham What Am — That's Chief Yetter

"Hello CQ. Hello CQ. This is Kilo Alfa 2 November Alfa."

This call, familiar to amateur radio operators from the four corners of the world, signifies that Albert "Pappy" Yetter, ALC, USN, is on the air looking for "rag chewers."

Pappy operates amateur radio station KA2NA and MARS (Military Affiliates Radio System) station AD1BO at NAS, Atsugi, Japan, under authority of the area commander.

The 55-year-old chief has been a radio ham ever since he joined the Navy 26 years ago. He has his own station back home in Philadelphia, Pa., and has been active in amateur radio wherever the Navy has assigned him. He says, "I've never operated as good a station as KA2NA."

Atsugi's station operates on 1000 watts, the maximum power allowed by the Federal Communications Commission, and can transmit anywhere in the world. The walls of Chief Yetter's radio shack are plastered with "QSL" cards from Sweden, Ecuador, Taiwan, Ethiopia, India, South Africa and every one of the 48 United States. The cards are exchanged among hams to show their radio contacts.

When asked about Iron Curtain hams, Pappy replied, "I worked a Russian station once, but he wouldn't talk. He just gave a signal report, then signed off. It's a funny thing, but even when talking among themselves, they never give locations."

Informality is a typical ham characteristic. Pappy talks to "Joe" in Chicago and "Fred" in London. Last names are easily forgotten. "I doubt if any stateside hams know who Chief Yetter is, but I'm sure a lot of them know Pappy at Atsugi,'" he added.

The Atsugi radio shack is especially popular at Christmas-time, when the MARS station is almost snowed under with greetings. The rest of the year messages proclaiming births, deaths and sickness all find their way to Atsugi's receiver. Pappy often tape-records these to double check for possible errors.

Like other operators, Yetter is well aware of the important role hams have often played in past disasters and the part they will probably take in future civil defense. As Pappy says, "Like any hobby, being a ham is fun or we wouldn't be doing it. But knowing there is always a possibility, at any time of the day or night, that we may be of service to a person, a family or even a nation, keeps us on our toes. We never stop trying to improve our equipment and reach hams we haven't talked to before."

—Charles Speirs, JO3, USNR

'PAPPY AT ATSUGI' is the ham handle the Chief is known by. Here he talks with friends in Chicago.

HOMETOWN CARD — Chief Yetter adds a QSL from Philadelphia to his world-wide collection.

Violin Virtuosos Fiddle While Ships Roam

Music has always been popular with Navymen, and this interest shows itself in various ways, from jazz to opera (see page 37). Fleet Air Squadron Nine, down at NAS Jacksonville, for example, has a young concert violinist with a lengthy musical career although he's barely 22 years old.

Fasron Nine's violinist is Airman Leonard B. Plummer, Jr. He began playing the violin at the tender age of four, and can now lay claim to 18 years of experience. The musical airman is also an "old hand" at the piano (13 years) and organ (six years); he plays the clarinet, too.

Naturally, all this study and experience has led to something of a public record for Plummer. Since he joined the Navy, he has performed regularly with the Jacksonville Symphony orchestra (whose conductor regards him as "a vital member of the second violin section, aiding much in the orchestra's success").

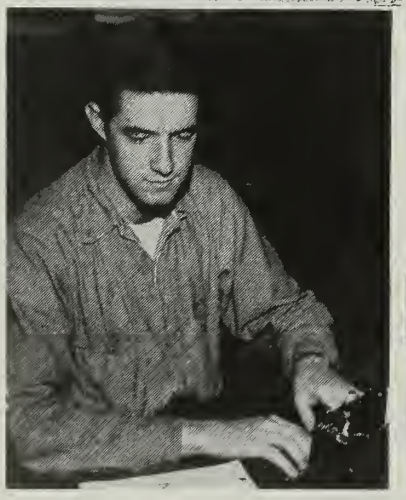
The young musician has also appeared for three seasons with the El Paso, Tex., Junior Symphony; with the Austin, Tex., High School orchestra and with the University of Texas Symphony. Teamed with his 19-year-old sister, who's been playing the violin for 15 years, Plummer has played both "pop" and classical music for a wide variety of civic organizations.

Another fiddler now rounding out 20 years in the Navy, is Chief Hospital Corpsman Carl M. Buterbaugh, USN. Before entering the sea service in 1936 he played with the Kansas City Symphony orchestra, and since then has won musical contests while representing the San Diego Naval Base.

He notched top honors in an amateur contest for three weeks in a row, and, while serving with the Third Marine Regiment at Camp Fuji, Japan, put in many of his off-duty hours entertaining Leathernecks at the camp's NCO club with violin playing.

Chief Buterbaugh is now in his fourth decade as a violinist.

FIDDLING CHIEF Hospital Corpsman C. M. Buterbaugh, USN, plays for Third Marines at Camp Fuji, Japan.



AIRMAN VIOLINMAN, L. B. Plumer, AN, USN, tends to clerical duties at FASRon 9. *Right:* Same sailor as he appears with Jacksonville symphony.

NAS Atsugi Has Underground

A good time to prepare for a disaster is before it happens. With an eye to the possible future, Naval Air Station, Atsugi, Japan, is putting to good use the fabulous network of caves which lay underground. These caves were constructed by the Japanese armed forces during World War II and are estimated to total some 25 miles in length.

During World War II Atsugi, as a Japanese naval air command, housed the First and Second Sagamino Naval Air Forces.

Construction of the subterranean system was started in September 1944 and completed April 1945, during the height of the American air raids. These shelters were built to prevent loss of life and enable naval aviation training to continue. Quarters, classrooms, practice halls, kitchens, and warehouses were moved underground. Many aboveground buildings were dismantled and used to equip the tunnels.

All work was done by Japanese enlisted men. They worked in three shifts using pick axes and shovels to dig the clay tunnels, and straw baskets to carry out the earth. The Atsugi shelters became nationally famous in Japan and were used as models for other construction.

After World War II many exaggerated stories sprang up about the caves. It was said that the caves ran all the way to Yokohama, 17 miles distant. These tales were fostered by the civilian populace who explored the abandoned caves with candles and, comparing their length with the small shelters they themselves had dug, exaggerated their size.

The long-neglected caves fell into a state of complete disrepair, with rotting wood and debris-filled passageways. Caves chosen by the U. S. Navy at Atsugi to be rehabilitated as shelters have been cleaned out and equipped with lighting and gravel floors. L-shaped concrete entranceways with gas-tight steel doors are being built to protect the mouths of the caves.

One cave will house the hospital in the event of an emergency. It contains an operating room, isolation room and wards. The old Japanese command center has been repaired and made ready for use. From here base operations would be run.

"Moisture is our biggest problem," says the officer in charge of the new

construction. "The wood used by the Japanese had rotted so badly you could pull out handfuls of it. Some of the caves had to be abandoned when they sank below the water level."

"Once the program is completed," he added, "we feel the caves will be able to withstand any conventional attack and fare well through a possible atomic explosion. A severe typhoon could theoretically level the whole base but all personnel in the caves would be safe."

Reenlistment Derby

Navymen are getting smarter all the time.

The Training Center at Bainbridge, Md., reports that 41 out of 46—or 89 per cent—of its eligible ship's company dischargees reenlisted during January 1956, as compared to 12 out of 17, or 71 per cent, for the previous January. This February, Bainbridge did even better—45 out of 47 eligibles shipped over for a reenlistment rate of 96 per cent, while last February the figures were only 43 out of 66, or 65 per cent.

On board USS *Windlass* (ARSD 4), 81 per cent, or nine out of 11 of those eligible to ship over, did so during the first three months of 1956. "Good ship, good food, and good liberty" were the main reasons they gave.

But the clincher, to prove that brains and reenlistments go together, is the case of Guided Missile Unit No. 25 at China Lake, Calif. Since that outfit entered the "reenlistment derby" 11 out of 11, or 100 per cent of those eligible have shipped over.

The average GCT of the unit's personnel is a fabulous 62.00!

Man-Made Moon

Project Vanguard, the name assigned by the Department of Defense to its part of the International Geophysical Year's earth satellite program, has reached the point where contracts have been signed for design and manufacture of the launching vehicles which will attempt to place the world's first man-made earth satellites in their far off orbits.

Vanguard is one of the major programs of the 1957-58 scientific year which have been assigned to Navy jurisdiction. Although IGY participation is on an inter-service basis, the Naval Research Lab has the responsibility for implementing the technical program under the management of the chief of Naval Research, including production of the three-stage rocket vehicle for the earth satellites, and launching and tracking the orbits of the man-made "moons."

Contracts already let include one for the design and manufacture of a "three-axis gyro-reference system" which will indicate the vehicle's position at any moment in regard to roll, pitch and yaw. There is another contract for design and manufacture of the magnetic amplifier auto-pilot which will control flight of the Vanguard vehicle from its launching point to an altitude of some 300 miles above the earth.

Two more contracts have been let for design and development of the third stage rocket which will take over and lift the satellite into its final orbital position.

Singing Sailor Makes Operatic Debut

When George W. Blankley, Jr., ET2, USN, was a member of his church choir in Westmont, N. J., he had no aspirations to become a professional singer. Instead he dreamed of the day he'd be an electrical engineer. He liked to sing; but then, who doesn't? In college he majored in electrical engineering and also was a member of the chorus.

When he enlisted in the Navy, it was logical that he be sent to electronics technician's school. After his training, he was ordered to duty at NATO Southern Europe headquarters in Naples, Italy. Singing by this time had become his hobby, so he spent his off-duty hours taking singing lessons. He met Enzo Aita, formerly a leading tenor with the Philadelphia opera company, who gave him an audition.

After a year and a half of night study under the tutelage of Aita, he was recommended to the Neopolitan Orchestra Opera which needed a basso to play the role of Sparafucile, in Verdi's "Rigoletto." In an audition he won the part.

BY NIGHT—PO Blankley becomes the opera singer Guglielmo Bianchi performing on stages of Naples.

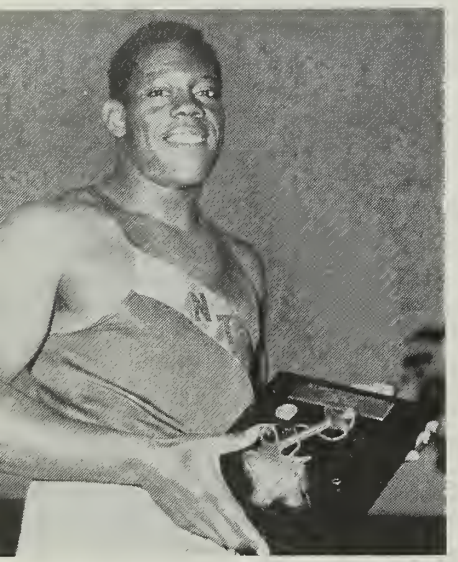
BY DAY—G. W. Blankley, ET2, USN, keeps teletype humming at NATO So. Europe Headquarters at Naples.

George made his debut on the stage of the Risorgimento Theatre in Naples. When the Navy electronics technician finished singing his duet with Rigoletto, the Italian audience began crying "bis, bis" which is the Italian equivalent of "more, more." At the end of the performance, Blankley was given five curtain calls—unheard of in Naples for an unknown opera singer.

But if you were to ask any Italian opera lover if he thought Navyman George Blankley was a "comer" in the world of opera singers, you'd probably draw a blank. Namely because George Blankley has the operatic name of Gugliemo Bianchi.

Since his initial performance, Blankley Bianchi has appeared in an opera concert for the benefit of the deaf-mutes of Naples. Last fall he appeared in the opera "Il Trovatore." He also has been soloist for the U. S. Navy band in its many benefit performances for the populous throughout southern Italy.

ALL-NAVY 100-meter dash was won by Fred Lucas, SN. *Right:* LTJG Jack Davis set a new high-hurdle record.



They're Off and Running

NAVY THIN-CLADS set four new records in the 1956 All-Navy Track and Field championships held in San Diego's Balboa Stadium. This year's running of the All-Navy T&F was actually a spectacular intrasquad meet for the NTC San Diego team since almost all the top track athletes from the Fleet have gathered there for the Olympic year track season.

The only man to win an All-Navy title who wasn't on the NTC squad was LTJG Tom Hessinger, USN, from Fleet Air, Far East. Hessinger won the hop, step and jump event with a distance of 43 feet, 6 inches.

TWO TITLE HOLDERS, LTJG Al Thompson won trophies in discus throw and shot-put. *Below:* Al Moore, SN, was first in both 200- and 400-meter dashes.

Leading the record-smashing way in the All-Navy was LTJG Jack Davis, USNR, who set a new record in the 110-meter high hurdles with a time of 13.7 seconds. Davis, the world's leading high hurdler, has broken records at five stadiums this season.

Davis' time in the All-Navy equaled the winning time in the 1952 Olympics by USA's Harrison Dillard. The former USC speedster also won the 400-meter All-Navy low-hurdles title with a time of 53.9 seconds.

Another All-Navy record set this year was by Joe Leach, AN, USN. He automatically set his new mark in the 3000-meter steeplechase with the time of 9:53.7, since it was the first running of this event in All-Navy competition.

Ensign Paul Murphy, USNR, former Holy Cross runner, set a new All-Navy and Balboa Stadium mark as he posted a 3:50.8 time in the 1500-meter run.

Ensign Bob Kimball, USNR, was the fourth record breaker, shattering the All-Navy record in the javelin throw as he tossed the spear 226′ 6″. The old record of 210′ 7″. was set in 1953 by Lynn Green of NTC San Diego.

Winner of two All-Navy titles this year was Al Moore, SN, USN, of NTC San Diego. Moore won both the 200- and 400-meter runs. His times were 21.7 seconds for the 200-meter and 48.1 seconds in the 400-meter.

Another double All-Navy champion was LTJG Al Thompson, USNR, NTC's Information and Education

STEEPLECHASE WINNER J. Leach, SN. *Right:* D. Foerster, SN, 800-meter champ, and ENS P. Murphy (rt.) 1500-meter winner

n Navy Track and Field

Officer. Thompson placed first in both the discus and shot put. The husky Columbia University weightman twirled the discus 165 feet and flipped the 16-pound shot 50′ 10″.

Joe Tyler, SN, USN, the little man with lots of endurance, started out to win the All-Navy 3000-meter run but instead earned the title of All-Navy 2600-meter champion. Track officials became confused about the number of laps run and brought the race to a close one lap short of the prescribed distance.

The Los Angeles-born runner ran the 2600 meters in 7:25.3.

Mark Smith, AT3, USN, came close to setting a new All-Navy record in the high-jump event. But the old record of 6′ 6⅞″ by Ken Weisner in 1953 stood up as Smith failed to clear the bar after he'd jumped 6′ 6″.

The Navy relay team of Leon Gilmore, SA, USN, Ensign Paul Murphy, USNR, Al Moore, SN, USN, and Dick Foerster, SN, USN, won the "open division" 1600-meter relay with the time of 3:16.

This year's All-Navy Track and Field Meet was held in conjunction with the Southwest Border AAU Championships. Here's the summary of events in this year's All-Navy:

100-meter dash—Fred Lucas, SN, USN; Ed Walter, SA, USN; Fred Miller, MU3, USN. Time: 10.6 secs.

200-meter dash—Al Moore, SN, USN; Lucas; Walter. Time: 21.7 secs.

400-meter dash—Moore; Leon Gilmore, SA, USN; Dick Forester. Time: 48.1.

800-meter run—Forester; Joe Leach, AN, USN; Louis Madrid, SA, USN. Time: 1:53.7.

1500-meter run—Ensign Paul Murphy; USNR; Joe Tyler, SN, USN; Madrid. Time: 3:50.8 (New record).

110-meter high hurdles – LTJG Jack David, USNR; Leon Daniels, SA, USN; Milton Campbell, SA, USN. Time: 13.7 (New record).

400-meter low hurdles—Davis; Leach; Robert Vucurvich, SA, USN. Time: 53.9.

3000-meter steeplechase – Leach; LTJG Sam Waltmire, USN; Ray Manion, YN2, USN. Time: 9:53.7 (New record).

Broad Jump—Jerry Lee, SA, USN; Phil Presber, SA, USN; Gilmore. Distance: 23 ft., ½ in.

Hop, step, and jump—LTJG Tom Hessinger; Presber; Lee. Distance: 43 ft., 7 in.

High jump—Mark Smith, AT3, USN; Tom Whetsteine, PN3, USN; LTJG Barney Dyer, USNR. Height: 6 ft., 6 in.

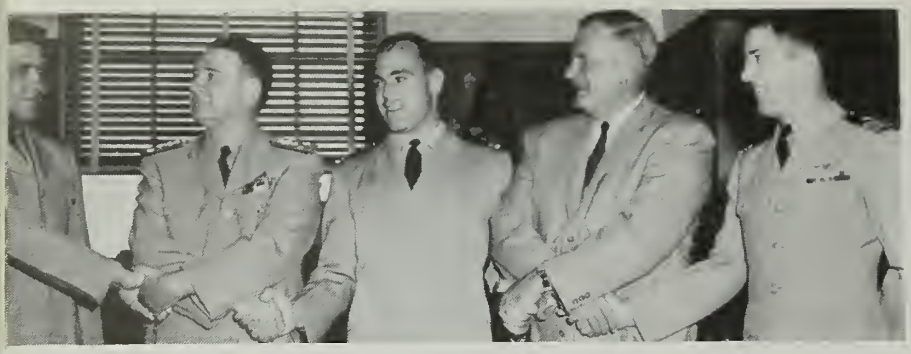
Shot put—LTJG Al Thompson; Sargent Nichols, SR, USN; Campbell. Distance: 50 ft., 10½ in.

Discus – Thompson; Ensign Bob Kimball, USNR; Campbell. Distance: 165 ft.

Javelin—Kimball; Herb Montoya, SA, USN; Ensign Doug Carlson, USNR. Distance: 226 ft., 6 in. (New record).

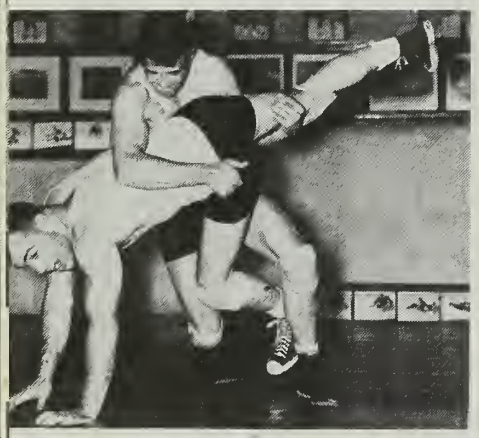
Pole Vault—Eddie Lee, SR, USN; Don Lewis, SR, USN; Campbell. Height 13 ft.

ALL-NAVY SPEARMAN, ENS Bob Kimball tossed new javelin record. *Below:* Joe Tyler, SN, won 2600-meter run.

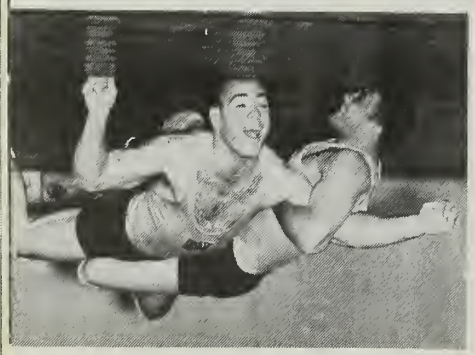


MAT MEN receive congratulations. (l. to rt.) ENS Pete Blair; VADM Holloway; LTJG Brad Glass; Academy Coach Ray Swartz; and LCDR Josiah Henson.

WINNING FORM—Olympic trial winner Blair starts out on bottom as Glass makes quarter-nelson attack.



BLAIR USES a leg lift and step through. *Below:* They're not really under water; turn upside down for correct view of scissors and arm attack.



Olympic Wrestlers

Ensign Pete Blair, USN, of USS *Shields* (DD 596), is a notch closer to the one title that he really wants—Olympic Wrestling Champion. Pete won the 191-pound free-style title in the American Olympic wrestling trials and has been selected as a member of this country's mat squad.

The husky 6-footer went through the four-day Olympic Trials undefeated to extend his victory streak to 48. Blair has not lost a match since March 1953. As a matter of fact, he has lost only five matches, as compared to 68 victories, since he began wrestling. He lost three bouts in 1952 in his plebe year at the Naval Academy and lost the other two in 1953.

Blair, the son of Rear Admiral Leon "Chief" Blair, USN, (Ret.), enlisted in the Navy in 1950 and was attending Fire Control School when he was selected for the Naval Academy Prep School. He was appointed to the Naval Academy in 1951 and graduated four years later.

"I had never wrestled before," explained Blair. "Actually, my size held me back from most sports in high school. When I enlisted in the Navy, I was 5 foot 6 inches tall. Then, to everyone's surprise, I grew six inches during my recruit training.

"Most people raise their eyebrows when I tell them that," added Blair, "but the records are there."

He won a spot as a 177-pounder on the varsity wrestling team in his plebe year. It was his plebe year as far as competitive wrestling was concerned, too, yet he managed to win third place in the Eastern Intercollegiate Wrestling tournament. Since then, Blair has won:

Second place, 177-pound class, 1953 EIW Tournament.

Weems Wrestling Trophy 1953—Outstanding wrestler on USNA team.

1954 Heavyweight championship EIW Tournament.

1954 NCAA 191-pound championship.

1954 Winner of Weems Wrestling Trophy.

1955 Heavyweight championship EIW Tournament.

1955 NCAA 191-pound championship.

The John A. Fletcher Trophy 1955, Outstanding Wrestler in EIW Tournament.

Co-winner of Thompson Award, Outstanding Athlete in USNA graduating class.

1956 National AAU 191-pound champion.

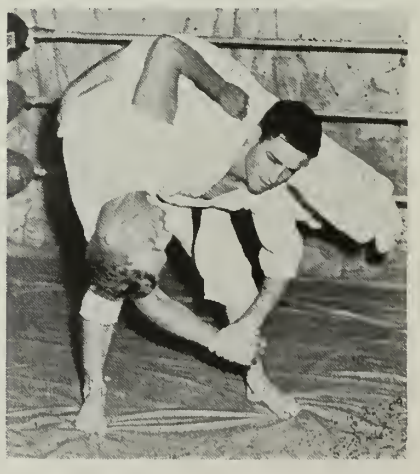
All-Navy 191-pound champion 1956.

"Blair is certainly one of the best wrestlers I've ever coached," claims Naval Academy wrestling mentor Ray Swartz. "He's a true champion, capable of turning his nervous system off or on almost at will," explains Swartz. "Before a match, Pete will fool most people with his apparent disinterest. But when the match begins, he's as crafty and dangerous as a stalking tiger.

"He's a terrific competitor," adds the Naval Academy coach. "Just when Pete's opponent thinks he's got him beat—that's when Pete is at his best. We've been teaching Blair the Olympic style of wrestling since 1953. He's in top form and has an excellent chance to go all the way."

In addition to Blair, three other members of the Navy wrestling team were selected as alternates to the free-style wrestling team. Hallow Wilson, SH2, USN, of NAS San Diego, Lieutenant Commander Josiah Henson,

DOWN BOY—Navyman in the Far East hits deck as shipmate executes a hip throw while practicing Judo.



USN, of NAS Corpus Christi and LTJG Brad Glass, USNR, were selected. Henson and Glass reached the semi-finals and Wilson was runner-up in the heavyweight division, losing out to 312-pound Bill Kerslake in the finals.

Two of the other winners in the Olympic Trials are former sailors. Dick Delgado, 114.5-pound free-style champion formerly wrestled for NTC San Diego and Dan Hodges, 174-pound Greco-Roman champion performed for NTC Great Lakes, Ill.

Gitmo Gunners

A hotshot pistol team from NAS Guantanamo Bay, Cuba, swept three of the four matches at the Fiesta of Five Flags Championship matches at Pensacola, Fla. The Gitmo gunners won the .45-caliber match with a score of 1027 out of a possible 1200. They won the Center Fire Team Match with a 1023 score and also took the Aggregate Team match with a score of 3159.

The only match that the Gitmo pistol packers failed to win was the .22-caliber match, won by the team from NAS Memphis, Tenn. Members of the winning NAS Gitmo Pistol team and their classifications are M. C. Schoonderwoerd, ADC, USN, Expert; J. B. Jocks, AO1, USN, Expert; C. E. Tryon, BMC, USN, Sharpshooter; and L. C. James, AO2, USN, Marksman.

In addition to the three winning team plaques, the NAS Guantanamo gunners won 46 individual awards.

BatCruLant Boxers

The boxing team from the battleship USS *Wisconsin* (BB 64) successfully defended its BatCruLant Boxing Championship. The matches this year were held in mid-May at the McCormick Sports Center in Norfolk.

Wisconsin boxers Stan Seigel, John Brown and Bob Hill successfully defended their BatCruLant titles while newcomers to the championship circle were Rudy Tamer and Ted Brockman.

Three members of the *Iowa's* team, flyweight Mario Torro, bantamweight John Devane and featherweight Leroy Leverett gained their championships by default because of lack of opposition. *Iowa's* other champion was Purcell Reddick.

The Badgerwagon's total score was 28 points while runner-up USS *Iowa* scored 10 points, followed by USS *Mississippi* with six and USS *New Jersey* and USS *Des Moines* with four.

SIDELINE STRATEGY

LIFE IN A SAND TRAP can be a pretty dull story to hear some golfers tell about it. But this doesn't hold true for Pershing J. Vezinat, HMC, USN, who learned to golf on an all-sand golf course in Egypt.

Vezinat, now stationed at NNMC Bethesda, Md., was on duty in the Naval Attache's office in Cairo, Egypt. The only recreation facilities available there were swimming, tennis and golf. In April 1954, Vezinat bought a second-hand set of golf clubs and began learning the game.

And learn he did. Two months after taking up the game, Vezinat scored a hole-in-one on the 220-yard 10th hole of the Maadi Sporting Club golf course. Just to prove that the first one wasn't pure luck, Vezinat scored another ace on the same hole two months later.

Vezinat then got word that the Bureau was giving Athletic Achievement Awards to men who scored a hole-in-one bowled a 300 game, pitched a perfect softball game or a no-hit, no-run baseball game. He applied for his Hole-in-One Trophy but was turned down since the date of establishment of the award was 1 Oct 1954 and all such athletic feats should be performed after that date.

This put a damper on the golfing feats of the Chief Hospital Corpsman—but not for long. On 31 Jul 1955, playing over the same Maadi Sporting Club course, Vezinat scored his third hole-in-one, a 252-yard shot from the first tee.

"The first hole has a clump of trees right in the middle of the fairway," related Vezinat. "If you shoot to either side, you'll almost always go out of bounds. And it's next to impossible to shoot through the trees.

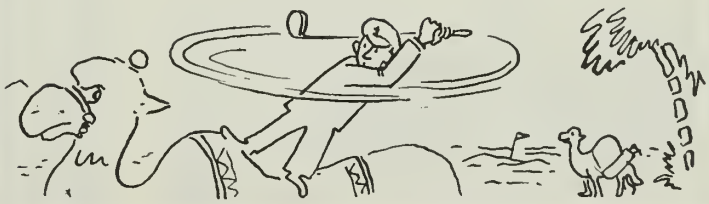
"So, I hit a good Number Four wood from the tee to make sure that I would clear the trees. I hit the ball pretty solid and figured that I'd at least be on the green. Much to my surprise, I holed out and score the third hole-in-one of my short golf career."

This time, Vezinat wasn't taking any chances about his not being eligible for a trophy. His score card was authenticated by the Maadi Sporting Club pro, both in English and Arabic. Vezinat was presented with his Hole-in-One Trophy last May by the Commanding Officer, National Naval Medical Center, Bethesda, Md.

Chief Vezinat described the course where he learned to play golf as "one continuous sand trap." Both the "greens" and fairways are sand, although the sand on the greens is solid, to permit putting.

Since returning to the States for duty, Vezinat has had a chance to play on an all-grass golf course. "It's been a lot tougher for me on the all-grass courses," admits the 11-handicap golfer. "For one thing, I'm having to learn how to putt all over again."

—Rudy C. Garcia, JOC, USN.



Brief news items about other branches of the armed services.

★ ★ ★

WEATHERMEN MAY SOON be able to tag an ordinary-looking thunderstorm as a potential death-dealing tornado by using facts uncovered by the Army Signal Corps.

Accurate and specific detection, impossible with today's forecasting techniques, would give families in a danger area more time to seek safety before a twister actually strikes.

Army researchers have now broken a tornado down into its basic elements and have successfully spawned miniature twisters in a laboratory tank. In another phase of the same study, they are identifying tornadoes through lightning characteristics.

In the tornado tank, water currents take the place of winds. Water, sucked from the top through a glass tube, creates the "updraft." At the same time a slow rotating current is started underneath. As soon as these "winds" get together the tornado forms.

In another phase of the tornado research, scientists are studying the lightning from storms for characteristics that may identify them as potential twisters. Such a lightning "fingerprint" could give a twister away before it even forms.

The Signal Corps research is not designed to break up or prevent twisters, but may provide the key to an early tornado alert.

★ ★ ★

AIR FORCE SCIENTISTS have begun to unlock the vast storehouse of energy in the high upper atmosphere.

An aerobee rocket equipped to release nitric oxide gas under high pressure was sent to an altitude of 60 miles above the desert sands of Holloman Air Development Center, New Mexico, and accomplished a breakthrough that has been the subject of speculation by geophysicists for the past 10 years—releasing the energy chemically stored by the sun in the upper atmosphere.

When the nitric oxide gas was automatically released, observers saw what first appeared to be the formation of a new star, with nearly twice the brightness of the planet Venus.

SOLDIERS OPERATE TV robot plane that has a 40-mile range. Plane's TV gear sends back aerial views of sites.

HAVE A SMOKE? A tank of the 3rd Infantry Division escapes 'enemy' during Army training exercises.

The light was reported by observers more than 60 miles away from the launching site.

In less than 10 minutes the "star" had grown in size so as to appear to an observer on the ground to be about four times the diameter of the moon.

By increasing the natural amount of nitric oxide in the atmosphere by a factor of several billion, the gas released by the rocket was able to unlock the chemically stored sunlight in vast quantities. This action produced the spot of light in the upper atmosphere which spread to approximately three miles in width before the nitric oxide gas thinned out and reduced the brightness of the light.

Although the spreading of the light was visible to the naked eye for approximately 10 minutes, sensitive instruments at observing stations on the vast Holloman range were able to detect the light for a much longer period.

Nitric oxide has the property of bringing two oxygen atoms together to form an oxygen molecule and release light. The gas is not used up in the process, but is used over and over again without being exhausted. The process occurs naturally, but the innate abundance of nitric oxide gas is so small that its natural glow in the sky must be detected at night by instruments many times more sensitive than the naked eye.

Scientists have known for many years that if they could find some way for the separate oxygen atoms to combine rapidly, a light many times stronger than natural light in the atmosphere could be emitted.

The light thus produced is actually sunlight which has been stored chemically in the oxygen atoms and can now be released.

The experiments may eventually lead to means of extracting this energy for such uses as the propulsion of rocket ships high in the earth's atmosphere.

★ ★ ★

A NEW HOT WEATHER Army uniform consisting of khaki shorts, knee-length stockings and short-sleeved, open-neck shirt, will be issued this summer. Two of the abbreviated uniforms will be included in initial

clothing allowances. Area commanders will prescribe conditions under which the hot-weather uniform may be worn.

The Army also has adopted a new general wear raincoat of light nylon, coated on the inside with polyvinylbutyral. It is taupe shade, double-breasted, with belt and shoulder loops. The new raincoat will be issued after stocks of the present type are exhausted.

★ ★ ★

An "airborne" crane, capable of lifting more than its own weight, has been developed by the Army's Corps of Engineers, Fort Belvoir, Va.

The unit, which weighs 14,700 pounds, is designed to lift nine tons at a 10-foot radius with outriggers. Without outriggers, it has a capacity of seven tons at the same radius. The machine is also equipped with shovel, dragline, and clamshell earth-moving attachments of half-cubic yard size. A 40-horsepower gasoline engine powers the unit.

Twenty-two feet six inches long, eight feet two inches wide and six feet nine inches high, the crane is within the critical transport limitations imposed by cargo aircraft. Construction equipment is considered airborne only if transportable as a unit and capable of operations within an hour after delivery.

★ ★ ★

Fire retardant paints which slow down the rate of burning have been developed by the Army's Corps of Engineers.

Containing certain pigments and oils which form a spongy insulating layer when subjected to heat, the paint also provides all the esthetic and protective properties of good interior and exterior finishes.

Use of fire retardant paints does not stop fires, but it does aid materially in minimizing damage and loss of life. The new development is expected to be of major value in the Civil Defense program.

★ ★ ★

A contract for the design and construction of a cylindrical gondola for a manned balloon flight to very high altitudes has been awarded by the Air Research and Development Command.

Following tests in an altitude chamber at Wright Air Development Center, two volunteers will make three balloon ascensions, with one of the two parachuting from the gondola at peak altitude. The other will ride the gondola down to 20,000 feet, where he will bail out.

IN TOW—An Air Force B-52 eight-jet long-range bomber is towed down ramp past control tower at Castle AFB.

AIR FORCE SPACEMEN—Crew of USAF B-52 receives instructions and check-out of high-altitude pressure suits.

The balloon is expected to go 63,000 feet on the first flight, 75,000 feet on the second, and 90,000 feet on the third. Tests to determine the problems of escape from aircraft at very high altitudes are expected to be conducted this fall, or next year, depending on availability of equipment.

The gondola will be seven feet across and seven feet high. It is expected to have aluminum supporting members and magnesium skin.

The parachute jumpers will wear partially pressurized suits, carry their own supply of oxygen, and be equipped with automatically operated parachutes.

As planned now, the two men will ascend in the pressurized gondola. When it reaches the altitude sought, the hatch will be opened and one of the two jumpers will bail out. He will free-fall, using only a stabilizing parachute, until his parachute opens automatically at 15,000 feet.

His companion will cut the balloon loose, releasing a stabilizing parachute on the gondoa and ride it to 20,000 feet. There he will bail out and free-fall to 15,000 feet, where his parachute will open automatically. The recovery parachute on the gondola will open at 20,000 feet and bring it to earth gently.

★ ★ ★

Some 700 army paratroopers "hit the silk" only 900 miles from the North Pole in the largest tactical airdrop to be made in the area.

The mass drop from C-124 *Globemasters* was made in 40 degrees below zero weather on frozen ice of a bay near Thule AB, Greenland.

The chutists kicked off the first operational phase of Exercise Arctic Night, a joint Army-Air Force maneuver in cold weather training for combat personnel.

Wind was calm and some veteran paratroopers said it was one of the easiest jumps they had ever experienced.

The joint cold weather exercise demonstrated that airborne troops can be used in the Arctic.

THE BULLETIN BOARD

New Evaluation System Gives Better Picture of Job You Do

A NEW NAVY-WIDE enlisted evaluation system, which will be effective 1 July, has been approved by the Chief of Naval Personnel. This new system will have great influence on your prospects for advancement to higher grades, and in your selection for the various officer programs. One of its primary objectives will be to differentiate the outstanding and the excellent from the average.

The most outstanding feature of the new system is the fact that *no minimum qualifying marks for eligibility for advancement in rating have been established or are contemplated. In short, it is the recommendation of the commanding officer that is the key factor.*

Although commanding officers and officers-in-charge will be responsible for the evaluation of all personnel assigned to their command, evaluation of each man's performance will be made by the division officer or appropriate division petty officer.

Performance marks will be assigned semi-annually. Among other things, the results of the evaluation will be used to determine: (1) a performance multiple for advancement in rate (commencing August 1957); (2) selection to warrant or commissioned status; (3) selection for special programs, projects and courses of instruction; (4) award of Good Conduct Medal; (5) character of discharge; (6) desirability for reenlistment; (7) reduction in rate for incompetency; and (8) propriety of early separation by administrative discharge.

Commanding officers are directed by the authorizing Instruction, BuPers Inst. 1616.4, to take positive steps to ensure that at least one evaluation, either regular or special, is made during each six-month period for all enlisted personnel under their command and that the results of these evaluations are entered in each individual's service record.

Here's a description of the types of evaluation, and the circumstances under which they are to be used:

A *Regular Evaluation* is submitted semi-annually as of 16 November and 16 May and covers the entire evaluation period or a significant portion of that period.

A *Special Evaluation* is submitted at some time in the reporting period other than the prescribed reporting date for a regular evaluation. Special evaluations are submitted under the following conditions:

- In all cases of reduction of pay grade.
- On transfer for permanent change of station if 90 or more days of the current reporting period have elapsed.
- On transfer for temporary additional duty if 90 or more days of the current reporting period have elapsed and if it is expected that you will not have returned to your permanent duty station by the next regular evaluation date.
- Special evaluations may also be made at any time when your performance indicates that special attention should be taken of particularly meritorious or derogatory performance. (See below for examples.)

If you have been on board for less than 90 days of a reporting period, you need not receive a regular evaluation, unless you have not been previously evaluated during that time or unless your record or your superior's observation indicates a definite and marked change from your earlier performance.

A performance evaluation will not be made during periods of confinement or recruit training. Performance grades, except for military behavior, will not normally be assigned

What the EPEW Will Do for You

A completely new procedure for evaluating and recording the performance of enlisted personnel is described in adjoining columns. This measure has received the close personal attention and approval of the Chief of Naval Personnel because, as he has told ALL HANDS:

"It will restore to the Fleet the importance and high order of participation of selection of petty officers. It will represent the accumulation of many people's judgment on a man's performance."

Applicable to all enlisted personnel on active duty and Naval Reserve members of drilling units or performing active duty for training, the new system differs radically from the earlier quarterly marks method.

The heart of the new system is a "grass roots" appraisal of each man made by his immediate supervisor on a fitness report-type form entitled "Enlisted Performance Evaluation Worksheet" (EPEW).

The new procedure is designed to emphasize the individual performance of duty and to furnish positive means of granting suitable recognition for above-average performance. In regard to advancement in rating, the new system will increase command authority by restoring the responsibility of advancement of all attached enlisted personnel.

In short, the sailor of ability will be given a better break in advancement in rating than he did under the former system.

during periods of hospitalization. The entry "not observed" may be used instead of grades for periods of less than a month.

In general, it is considered desirable that each man be evaluated by his immediate and responsible military supervisor and for the specific period involved. This supervisor completes a Work Sheet (NavPers 792) which is approved and authenticated through a chain of command as designated by the commanding officer.

The instruction points out that evaluations must be based on a man's abilities as compared to established Navy standards, his contemporaries' performance, and upon his own demonstrated performance during the marking period. It further points out that arbitrarily assigning high grades to all men in a particular pay grade penalizes outstanding men who should be rewarded with recognition for their efforts. Again, arbitrarily assigning high grades for advancement purposes weakens the promotion multiple system.

It is felt that evaluations should reflect your performance for your rating group and pay grade. However, evaluation in professional performance while under instruction will indicate your progress in your studies. Likewise, if you are an instructor or recruiter, your evaluation will indicate your ability in your specialized field. If you are performing any other special duty outside your technical area as, for example, Master at Arms, the evaluation of professional performance will indicate how well you are performing your special duty.

Adjectival markings on the Work Sheet referred to above are ultimately transferred to page 9 of your service record in the form of numerical equivalents. In addition memorandum entries will be made on the following occasions:

- Meritorious mast.
- Recommended for advancement in rate for pay grades E-4 and above.
- Performance of duties normally performed by personnel of a higher rate.
- Performance of duties outside of technical area, such as Master at Arms, under instruction, recruiting and instructor duties, and messman duties.
- Recommended for reenlistment.
- Extension of enlistment.
- Assignment of non-judicial punishment.
- Conviction by court-martial.
- Conviction by civil authorities (including forfeiture of bail).
- Restoration to duty after serving a period of confinement.

This is by no means a complete list. Commanding officers may make memorandum entries on page 9 for any reason they consider appropriate.

Criteria for honorable discharge, general discharge, reenlistment, Good Conduct Medal, and reduction in rate for incompetency are contained in the Instruction.

It is anticipated that submission of the Enlisted Evaluation Report (NavPers 1339, Rev. 56) will be required for personnel in the more senior pay grades as a substitute for letter requests of individuals for assignment to duties where selection based on performance is a factor, and as a substitute for letter recommendations by commanding officers for assignment or promotion.

As of 1 Jul and before 1 Sep 1956:

- All quarterly marks must be averaged and entered on the old page 9 which will be retained in the service record.
- An entry on the old page 9 must be made as to whether the individual qualifies for an honorable discharge and reenlistment.
- A new page 9 for use with the new evaluation system will be prepared. Quarterly marks from the old system will never be entered on the newly prepared page 9. Marks under the two systems will always be considered separately except when determining desirability for reenlistment and honorable discharge.

"I don't care what your Rock and Roll friends think. Blue suede shoes are out of uniform!"

CPOs Lend a Hand to Help Improve Advancement Exams

Men who know the ropes from their own experience—CPOs of the ratings involved—are taking an increasingly active part in the preparation of Fleet-wide competitive exams.

Thirty-six chiefs, representing a variety of general service ratings, have attended the third in a series of conferences to help improve the tests in their particular fields. Together, the chiefs and the men who write the exams went over proposed test plans and outlines which indicate the weight to be given questions in relation to different areas of the *Manual of Qualifications for Advancement in Rating.*

Their recommendations were then presented to a steering committee composed of officers and civilian specialists from the Examining Center and of representatives of this Bureau. Approved suggestions will go to appropriate commands and technical bureaus for final evaluation.

Two New Courses Readied For MSTS and CEC Personnel

Two new officer correspondence courses are now available at the Naval Correspondence Course Center.

Basic Structural Engineering (NavPers 10749), is a three-assignment course, evaluated at six Naval Reserve points credit. This course is restricted to officers of the Civil Engineer Corps, USN or USNR.

Military Sea Transportation and Shipping Control NavPers (10972-A), is an eight-assignment course, evaluated at 16 Naval Reserve points credit. This course supersedes *Naval Overseas Transportation and Shipping Control* (NavPers 10972). Personnel who completed the earlier course will receive additional credit for completing this revision, if they are otherwise eligible to receive credit for this subject.

Application for enrollment in either of these courses should be submitted on Form NavPers 992 (Rev 10/54 or later). Forward the application via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, New York.

List of New Motion Pictures Available for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are indicated by (C) and those in wide-screen processes, by (WS). Distribution began in May.

Movies distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. These films are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

The Black Widow (519) (C) (WS): Drama; Ginger Rogers, Van Heflin.

Hell and High Water (520) (C) (WS): Drama; Richard Widmark, Bella Darvi.

Never Say Goodbye (521) (C): Drama; Rock Hudson, Cornell Borchers.

The Man Who Loved Redheads (522): Romantic Musical; Moira Shearer, John Justin.

The Court-Martial of Billy Mitchell (523) (C): Drama; Gary Cooper, Charles Bickford.

The Adventures of Hajji Baba (524) (C) (WS): Fantasy; John Derek, Elaine Stewart.

The Egyptian (525) (C) (WS): Biblical Drama; Edmund Purdom, Jean Simmons.

The Killer Is Loose (526): Crime Drama; Joseph Cotten, Rhonda Fleming.

Five Guns West (527) (C): Western; Dorothy Malone, John Lund.

Helen of Troy (528) (C): Costume Drama; Rosanna Podesta, Jack Sernas.

Desiree (529) (C) (WS): Historical Drama; Marlon Brando, Jean Simmons.

Battle Stations (530): Naval Drama; William Bendix, John Lund.

Forever Darling (531) (C): Comedy Drama; Lucille Ball, Desi Arnaz.

The Creature Walks Among Us (532): Drama; Jeff Morrow, Rex Reason.

The Indian Fighter (533) (C): Adventure Drama; Kirk Douglas, Elsa Martinelli.

White Feather (534) (C) (WS): Indian Adventure; Robert Wagner, Debra Paget.

Glory (535) (C): Drama; Margaret O'Brien, Charlotte Greenwood.

Paris Follies of 1956 (536): Musical; Forrest Tucker, Margaret Whiting.

The Come On (537): Drama; Anne Baxter, Sterling Hayden.

Anything Goes (538) (C): Musical; Bing Crosby, Jeanmaire.

That Lady (539) (C) (WS): Historical Drama; Olivia DeHavilland, Gilbert Roland.

The Benny Goodman Story (540) (C): Musical Drama; Steve Allen, Donna Reed.

Quentin Durward (541) (C): Historical Drama; Robert Taylor, Kay Kendall.

The Steel Jungle (542): Drama; Perry Lopez, Beverly Garland.

The Rose Tattoo (543): Drama; Anna Magnani, Burt Lancaster.

Course on Investigations Now Available from NCCC

A new officer correspondence course, *Investigations* (NavPers 10726), is now available at the Naval Correspondence Course Center. This course, based on the 1955 Naval Supplement to the Manual for Courts-Martial, consists of two assignments and is evaluated at 4 Naval Reserve points credit.

Application for enrollment in this new course should be made on Form NavPers 992 (Rev 10/54 or later), and forwarded via official channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn 1, N. Y.

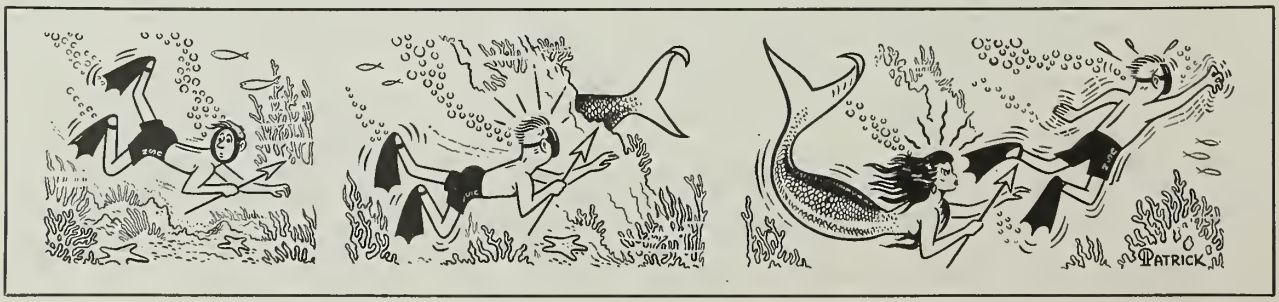
PLANNING TO PARTICIPATE in the August examinations? If so, here's a preview of your opportunities for advancement — provided, of course, that you obtain a passing mark and are otherwise eligible.

A glance at the table below will show that most Navymen who obtain a passing mark in the service-wide examinations for advancement in August will have an excellent opportunity for advancement in the majority of rates and ratings.

This data, compiled at the direction of the Chief of Naval Personnel, is based on available statistics, study of past performance and a considered estimate of all the variables which might affect advancement. A similar table, showing advancement opportunities in the February examinations, was published in the January 1956 issue of ALL HANDS.

However, in studying the probabilities of advancement in your rating, you should bear in mind that these figures are tentative and may be changed as the needs of the service may require.

NOTE: In the table below you will note that the term "Nearly All" appears frequently. In many cases, ALL who pass the examination will be advanced. However, it should be understood that the figures given at right are only estimates.



Preview of Your Chances for Advancement in August Exams

Rating	Pay Grade E-6			Pay Grade E-5			Pay Grade E-4			Rating
	Take Exam	Will Pass	Per cent Passing who will Advance	Take Exam	Will Pass	Per cent Passing who will Advance	Take Exam	Will Pass	Passing Per cent who will Advance	
8M	2760	1180	3% to 10%	2760	1380	3% to 10%	5950	4880	3% to 10%	8M
QM	570	250	11% to 50%	900	450	Nearly all	2100	1720	Nearly all	QM
RD	540	230	Nearly all	120	60	Nearly all	1900	1560	Nearly all	RD
SO	300	130	Nearly all	600	300	Nearly all	740	610	Nearly all	SO
TM	420	180	3% to 10%	360	180	Nearly all	430	350	Nearly all	TM
GM	1320	570	3% to 10%	1380	690	11% to 50%	1940	1600	Nearly all	GM
GS	60	30	Nearly all	120	60	Nearly all	70	60	Nearly all	GS
FT	450	190	Nearly all	960	480	Nearly all	1340	1100	Nearly all	FT
MN	120	50	11% to 50%	180	90	51% to 75%	200	160	Nearly all	MN
ET	630	270	Nearly all	1260	630	Nearly all	1600	1320	Nearly all	ET
IM	60	30	11% to 50%	90	45	Nearly all	80	70	Nearly all	IM
OM	60	30	3% to 10%	90	45	Nearly all	60	50	Nearly all	OM
TE	540	230	Nearly all	840	420	Nearly all	900	740	Nearly all	TE
RM	780	340	Nearly all	1380	690	Nearly all	2480	2040	Nearly all	RM
CT	300	130	Nearly all	540	270	Nearly all	840	690	Nearly all	CT
YN	1380	590	11% to 50%	1920	960	Nearly all	2600	2130	Nearly all	YN
PN	420	180	Nearly all	780	390	Nearly all	1180	730	Nearly all	PN
MA	150	70	3% to 10%	120	60	11% to 50%	100	80	Nearly all	MA
SK	840	360	51% to 75%	1200	600	Nearly all	2020	1660	Nearly all	SK
DK	270	120	3% to 10%	360	180	Nearly all	490	400	Nearly all	DK
CS	1980	850	11% to 50%	1650	810	11% to 50%	1560	1280	Nearly all	CS
SH	600	260	3% to 10%	1020	510	11% to 50%	1290	1060	Nearly all	SH
JO	90	40	11% to 50%	120	60	Nearly all	130	100	Nearly all	JO
LI	120	50	3% to 10%	180	90	11% to 50%	160	130	Nearly all	LI
DM	75	30	Nearly all	120	60	Nearly all	140	110	Nearly all	DM
MU	120	50	Nearly all	210	105	Nearly all	220	180	Nearly all	MU
MM	1320	570	Nearly all	2040	1020	Nearly all	3250	2670	Nearly all	MM
EN	1260	540	11% to 50%	1560	780	Nearly all	2050	1680	Nearly all	EN
MR	300	130	Nearly all	360	180	Nearly all	440	360	Nearly all	MR
8T	900	390	Nearly all	1500	750	Nearly all	3190	2620	Nearly all	8T
EM	1110	480	Nearly all	1680	840	Nearly all	2960	2430	Nearly all	EM
IC	300	130	Nearly all	540	270	Nearly all	670	550	Nearly all	IC
ME	600	260	3% to 10%	660	330	Nearly all	560	460	Nearly all	ME
FP	420	180	11% to 50%	660	330	Nearly all	790	650	Nearly all	FP
DC	450	190	3% to 10%	660	330	11% to 50%	620	510	Nearly all	DC
PM	45	20	11% to 50%	60	30	Nearly all	50	40	Nearly all	PM
ML	60	30	11% to 50%	90	45	11% to 50%	60	50	Nearly all	ML
SV	45	20	Nearly all	90	45	Nearly all	60	50	Nearly all	SV
CE	120	50	Nearly all	210	105	Nearly all	170	140	Nearly all	CE
CD	240	100	11% to 50%	480	240	51% to 75%	470	390	Nearly all	CD
CM	180	80	51% to 75%	300	150	Nearly all	270	220	Nearly all	CM
8U	180	80	Nearly all	360	180	Nearly all	320	260	Nearly all	8U
SW	105	50	Nearly all	180	90	Nearly all	140	110	Nearly all	SW
UT	105	50	51% to 75%	120	60	Nearly all	140	110	Nearly all	UT
AD	2220	950	3% to 10%	2220	1110	Nearly all	2280	1870	Nearly all	AD
AT	1020	440	Nearly all	1740	870	Nearly all	1870	1540	Nearly all	AT
AO	540	230	3% to 10%	840	420	Nearly all	920	750	Nearly all	AO
AQ	90	39	Nearly all	90	45	Nearly all	40	30	Nearly all	AQ
GF	750	320	Nearly all	60	30	Nearly all	40	30	Nearly all	GF
AC	240	100	Nearly all	270	135	Nearly all	560	460	Nearly all	AC
A8	300	130	11% to 50%	660	330	51% to 75%	1280	1050	Nearly all	A8
AE	540	230	Nearly all	720	360	Nearly all	930	760	Nearly all	AE
AM	840	360	11% to 50%	1080	540	Nearly all	1550	1270	Nearly all	AM
PR	180	80	51% to 75%	180	90	Nearly all	140	120	Nearly all	PR
AG	240	100	Nearly all	360	180	Nearly all	400	330	Nearly all	AG
TD	180	80	11% to 50%	300	150	Nearly all	360	300	Nearly all	TD
AK	300	130	11% to 50%	480	240	Nearly all	950	780	Nearly all	AK
PH	270	120	11% to 50%	480	240	Nearly all	500	410	Nearly all	PH
HM	1560	670	3% to 10%	2580	1290	11% to 50%	2350	1930	Nearly all	HM
DT	240	100	11% to 50%	480	240	Nearly all	420	340	Nearly all	DT
SD	1440	620	3% to 10%	1860	930	3% to 10%	2840	2330	3% to 10%	SD

Here's How Your Rate Did in the Last Advancement Exams

Rate	No. who passed	No. who may be advanced	No. who passed	No. who may be advanced	No. who passed	No. who may be advanced	No. who passed	No. who may be advanced	Rate
	E-4		E-5		E-6		E-7		
BM	4026	2026	1546	744	1424	157	997	51	BM
QM	1450	1450	323	323	211	211	313	47	QM
RD	1587	1587	508	508	233	233	120	120	RD
SO	702	702	318	318	110	110	95	95	SO
TM	480	480	121	121	192	21	134	20	TM
GM	2061	2061	672	672	706	71	478	48	GM
GS	51	51	25	25	10	10	20	20	GS
FT	1639	1639	508	508	172	172	183	183	FT
MN	192	192	72	72	39	39	21	21	MN
ET	1376	1376	619	619	216	216	353	353	ET
IM	60	60	17	17	11	11	11	7	IM
OM	42	42	20	20	13	11	12	2	OM
TE	780	780	334	334	207	207	79	67	TE
RM	2008	2008	608	608	249	249	208	208	RM
CT	921	921	241	241	99	99	174	174	CT
YN	2865	2865	797	797	526	526	386	180	YN
PN	1359	1359	341	341	148	148	182	182	PN
MA	87	87	35	35	75	6	64	20	MA
SK	1921	1921	492	492	301	301	328	170	SK
DK	457	457	133	133	72	15	99	40	DK
CS	1594	1594	799	799	1104	104	742	120	CS
SH	1375	1375	449	449	260	29	227	82	SH
JO	103	103	27	27	15	15	11	5	JO
LI	148	148	53	53	22	6	28	19	LI
DM	113	113	34	34	13	13	11	11	DM
MU	233	233	88	88	26	26	28	28	MU
MM	3293	3293	978	978	564	564	519	318	MM
EN	2114	2114	643	643	470	127	706	243	EN
MR	448	448	156	156	93	93	79	79	MR
BT	2659	2659	680	680	329	329	455	455	BT
EM	2299	2299	739	739	509	509	366	366	EM
IC	741	741	253	253	82	82	59	59	IC
ME	614	614	246	246	194	42	312	74	ME
FP	884	884	322	322	161	161	110	55	FP
DC	610	610	336	336	164	19	255	84	DC
PM	25	25	16	16	2	2	4	4	PM
ML	42	42	17	17	11	11	10	2	ML
SV	44	44	23	23	3	3	1	1	SV
CE	122	122	58	58	24	24	11	11	CE
CD	476	476	228	228	96	96	26	26	CD
CM	239	239	140	140	53	53	34	22	CM
BU	346	346	182	182	64	64	25	25	BU
SW	105	105	63	63	27	27	9	9	SW
UT	113	113	47	47	27	27	13	13	UT
AD	2156	2156	1115	1115	1071	155	1584	41	AD
AT	1375	1375	770	770	323	323	351	351	AT
AO	954	954	349	349	215	24	324	16	AO
AQ	12	12	14	14	14	14	52	52	AQ
GF	2	2	10	10	16	16	48	48	GF
AC	347	347	101	101	74	74	110	110	AC
AB	1532	1532	405	405	97	97	54	54	AB
AE	1024	1024	304	304	169	169	140	140	AE
AM	1264	1264	502	502	334	334	497	107	AM
PR	76	76	45	45	56	6	94	66	PR
AG	372	372	154	154	49	49	51	51	AG
TD	407	407	148	148	70	70	79	66	TD
AK	899	899	196	196	95	95	72	72	AK
PH	492	492	204	204	71	71	96	62	PH
HM	2999	2999	1176	1176	659	328	819	27	HM
DT	414	414	160	160	62	33	110	45	DT
SD	1881	178	1093	103	653	78	500	15	SD
TOTAL	59,010	55,307	21,055	19,263	13,353	7,172	13,295	5,438	

ON PAGE 47 you were able to learn of your prospects for advancement in the August examinations. At left, you will find how your rate and rating did in the February exams. The table shows the actual numbers of personnel by rate and pay grade who passed the examinations held in February, and the number included in the quota for advancement in each rate on a service-wide basis. With the exception of some rates, you'll find most who passed are eligible for advancement.

The continuing shortage of qualified personnel in the electronics and engineering ratings shows that personnel in most pay grades of those ratings will have continued excellent opportunities for advancement in the foreseeable future.

Continuing quotas for advancement to PO1 and PO2 in certain ratings and to PO3 in two ratings indictate the wisdom of change in rating of qualified personnel to those ratings where advancement opportunities are greater. In this issue you will find a brief rundown telling under what conditions a change in rate may be made, and how to go about it.

If You Want to Make That Cruise You Can Extend Your Enlistment for 30 to 330 Days

If your ship or unit is scheduled for, or engaged in, a cruise on distant duty, and you don't have enough active obligated service to finish the cruise, you may be allowed to extend your enlistment voluntarily for a period from 30 to 330 days to give you enough time to complete the cruise.

This authorization for extension of enlistment periods of less than one year is part of the new regulations concerning the reenlistment and voluntary extension of enlistment of Regular Navy personnel published in BuPers Inst. 1133.1C.

The voluntary extension of an enlistment for less than a year is subject to regulations published by CinCLant and CinCPac or their type commanders. Also, regulations require that an individual must be serving in a ship or unit that is going on, or is actually on a cruise when he agrees to extend, except that other cases when meritorious, may be referred to the Chief of Naval Personnel for decision.

Regular Navy personnel may extend or reextend their enlistments in accordance with Art. C-1403, *BuPers Manual,* as modified by this Instruction. The aggregate of extensions and reextensions during any one enlistment cannot exceed four years. In this regard, you should remember that any time served in an involuntary extension of enlistment must be included in the aggregate of extensions allowed in any single enlistment.

Personnel who were inducted into the Navy are not permitted to extend their term of service. However, they may agree to remain on active duty as Naval Reservists, beyond their normal expiration of active obligated service dates in accordance with BuPers Inst. 1133.8.

Regular Navy personnel may be discharged and reenlisted in the Regular Navy at the following times:

- On normal expiration of enlistment.
- At any time within three months before normal expiration of enlistment.
- Up to one year before expiration of enlistment but more than three months before the normal date.
- Upon specific approval of the Chief of Naval Personnel.

If you ship over within three months before the normal expiration of your enlistment, you must reenlist for either four or six years. Only exception to this rule is for persons reenlisting in the Regular Navy for the first time.

Personnel in this category may elect to reenlist for periods of two, three, four or six years.

Persons reenlisting up to one year early but more than three months before the normal expiration date of their enlistment must reenlist for either four or six years.

Information on reenlistment bonus, mileage, or lump-sum payment for unused leave pertaining to reenlistment or extension of enlistment is contained in Chap. 4 of *NavCompt Manual,* Vol. 4, and Chap. 4 of *Joint Travel Regulations.*

Complete details on reenlistment and voluntary extension of enlistment by Regular Navy personnel are in BuPers Inst. 1133.IC.

Training for More NavCATs Follows Success of Teams, Courses Set Up on Both Coasts

Career Appraisal and Counseling courses have been established at the Service School Commands, Bainbridge, Md., and San Diego, Calif. The courses will train personnel both for the formation of new Naval Career Appraisal Teams (NavCATs) and the replacement of present team members. They will also give refresher training to members of the 215 NavCATs now in existence.

Courses are three weeks in length and feature training in the techniques of NavCATs operation and individual reenlistment counseling.

To qualify, men should be career personnel, strong leaders and effective speakers, with maximum tour remaining, and 18 months' obligated service. All ratings are desired, but greater consideration will be given to the effect of the team member's or reenlistment counselor's rating upon his prospective audience. Especially desired are those in the "old-line Navy" ratings or in ratings with a high proportion of sea duty.

Convening dates which have been established are: 16 Jul, 13 Aug, 10 Sep, 8 Oct, 5 Nov 1956, and 7 Jan 1957. Shore activities may request quotas from the Chief of Naval Personnel; Fleet units, from the Service Force Commander or Type Commander as appropriate.

Because of the NavCATs' success in improving the reenlistment rate, the Navy now plans to accelerate the program.

All-Navy Cartoon Contest
G. C. Vliet, PNA3, USNR

"The management does not appreciate your sense of humor in playing "Taps" for mess call!"

Reenlistment Options Let You Stake a Claim on Duty You Want

If you're planning to ship over, you can still be assured of duty in your ship for another 12 months, or request a change of Fleets and figure on at least 12 months' duty in the Fleet of your choice. This is a continuation of the program instituted by the Chief of Naval Personnel and commonly referred to as the "reenlistment options."

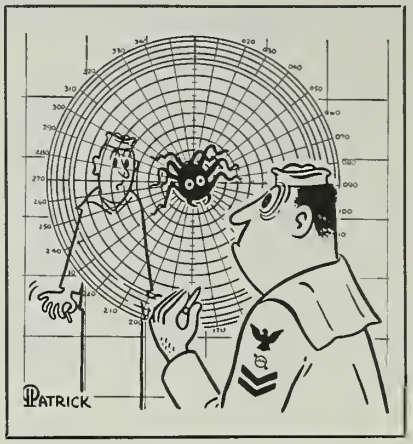
The authority for these choices of duty assignments by reenlistees is BuPers Inst. 1306.25C—"Options for assignment to duty of enlisted personnel on reenlistment." This is the latest instruction on reenlistment options and cancels BuPers Inst. 1306.25B.

The changes made by the latest instruction include:

• Elimination of option 5. Under this option, a reenlistee could be transferred to a Receiving Station of his choice for further assignment by the Chief of Naval Personnel.

• The AC rating has been added to those not eligible to participate in this program.

• Reenlistees in Fleet units, having selected Option 3, may be granted Option 1 as an alternate choice at any time up to the date of transfer.



The other changes made by the new Instruction are administrative and do not alter the reenlistee's chances of getting the duty of his choice. Below, you'll find a summary of the reenlistment options, in case you may have missed.

The only exceptions in the choice of duty guarantees offered by the Navy upon reenlistment are a few highly technical rates and personnel holding certain special program job code numbers. However, other provisions have been made for those persons.

Generally, you may make one of three choices on the day you sign your new shipping papers. According to the option you select, you may be assured of:

• A minimum of 12 months' duty on board the ship in which you are now serving, unless it is a non-rotated unit.

• Completion of a normal tour of duty if you are serving on shore duty, whether it be Fleet, overseas, or Bureau, if the activity or command in which you are serving has an allowance for your rating and a normal tour has been prescribed.

• A minimum of 12 months' duty in a Fleet command having a home port on the continental U. S. coast of your choice. You should note that if you select this option, you are NOT guaranteed assignment to any particular unit, activity or locality.

Under the provisions of Option 3, you indicate the coast of your choice (Atlantic or Pacific) and you are *guaranteed* to go. You then indicate four preferences of duty assignment for which you are qualified and every consideration will be given your listed preferences.

If you are in a Fleet unit when you reenlist and select Option 3, you will be given a chance to select an alternate option. If, before you receive your orders under Option 3, you decide to take Option 1 and stay with your ship for another 12 months, you may do so.

If you ship over under the provisions of BuPers Inst. 1133.4 (Discharge and reenlistment of Regular Navy personnel within one year of expiration of enlistment date), you may not take advantage of the third option if you reenlist more than three months prior to normal expiration of enlistment, but are entitled to either of the other two.

Navymen in the ratings of CT, MA, DT, AC, AG, GS, GF, AQ and those designated in Ground Controlled Approach, Carrier Controlled Approach and Aviation Pilot are not eligible to take advantage of the

Navy's Job in the Free World

As you go about your daily routine, here's something to keep in the back of your mind. It's quoted from SecNav Notice 5720 of 24 Mar 1956, as a concise summary of the role of today's Navy:

• *"The United States depends on the Navy more today than ever before*—The Free World is an oceanic confederation bound together by mutual security treaties. A keystone of United States policy is collective security. The strength, unity and collective security of the Free World depend on the U. S. Navy's ability to control the sea communications of the oceanic confederation.

• *"In global war the oceans become a giant, inter-connected battlefield surrounding all continents*—As nuclear power, supersonic aircraft and the most powerful weapons of the day are adapted to shipboard use, the readiness of the U. S. Navy to project its power against an enemy and to prevent enemies from projecting similar power against the United States becomes more important than ever. The U. S. Navy must remain supreme on the oceanic battlefield if the United States and the Free World are to survive and win a nuclear war.

• *"The U. S. Navy is more important than ever before*—

"*In Cold War,* it provides a display of power in troubled waters such as Formosa Strait and the eastern Mediterranean. Its on-the-spot readiness to strike immediately if necessary is an effective deterrent to war, whether big or little.

"*In Limited War,* naval forces can be assembled quickly in international waters near the scene of action and employed immediately in support of United States interests.

"*In All-Out-War,* in a surprise nuclear attack, after initial blows have been exchanged, mobile naval forces dispersed at sea may be the only forces immediately available to strike back."

provisions of this instruction.

Also in this category are those men in any rating who hold the following special program job codes: 9924—Special Weapons Electrical Assemblyman; 9955 — Submarine Water Cooled (STR) Reactor Powerplant Operator; 9956—Submarine Liquid Metal Cooled (SIR) Reactor Powerplant Operator; 9974—Explosive Ordnance Disposal Technician; 9976—Guided Missiles Technician; 9979—Rocket Launcher Mark 108 Technician; 9980 — Project Atlas Technician; 9990—Fire Control Systems Mark 102 Technician; 9991—Underwater Demolition Team/Explosive Ordnance Disposal Technician; 9992—Special Weapons Disposal Technician.

However, if you fall in the above categories, you may, when you reenlist, submit your duty preferences to the Chief of Naval Personnel. The men in these ratings and with the special program job codes will receive individual consideration in future assignment.

Here's another item that might well be worth remembering when you contemplate shipping over: On a broken service reenlistment (after more than three months from date of last discharge), you are not eligible for any of the provisions of the duty assignment options of this instruction.

A Wave reenlisting will be assured of immediate reassignment to one of four distribution commands. These distributions commands are: Chief of Naval Air Training Command, Potomac River Naval Command, Commandant Fourteenth Naval District or the District Commandant of any district in the continental U. S. A Wave should indicate her choices of duty in the order of preference.

Is the Navy standing good on its assurances of duty assignment to reenlistees? A check of the records will give you an "affirmative." A survey of assignments under Option 3 showed that more than 90 per cent of the men were granted their first choice. Eight out of the remaining 10 got their second preference. Naturally, everyone was assigned the Fleet of his choice since this had been guaranteed.

Complete details on all phases of the "reenlistment options" program is in BuPers Inst. 1306.25C.

Policies Set for Separation Of Medical, Dental Officers

New policies for the voluntary separation of Reserve and Regular Medical and Dental Corps officers have been laid down by SecNav Inst. 1920.4.

Under this instruction, permanent officers of the Medical and Dental Corps, Regular Navy, who submit their resignation, may, except in unusual circumstances, expect favorable action on their requests after they have completed at least two years of active commissioned service. Although additional service requirements, incurred as a result of advanced training or graduate instruction, must still be met after the training is completed, this time may now be served concurrently with the minimum two-year period. Thus, an officer is normally eligible to resign either upon completing the two-year period or when he finishes his additional service requirement, whichever occurs later. The duration of this additional service is established for each individual when he begins his advanced training or graduate instruction.

In cases where a Regular officer has a total of less than eight years' active and inactive commissioned service (or less than six if he was commissioned after 9 Aug 1955) favorable action on his resignation will usually depend upon his acceptance of a commission in the Naval Reserve.

A Reserve officer, who has completed his period of obligated active duty, may normally expect favorable action on his request for resignation if he has at least eight years of total active and inactive commissioned service, or at least six, if he was commissioned after 9 Aug 1955. (Amplifying information on certain cases may be found in BuPers Inst. 1920.6.)

Although the provisions of *BuPers Manual*, Article C-10338(2), remain in effect, the acceptance of a married woman officer's resignation is not normally contingent upon her acceptance of a Reserve Commission.

Naturally, since action on requests submitted in accordance with the new directive will be governed by needs of the service, approval may sometimes be withheld until a qualified relief is available to fill the billet.

HERE'S YOUR NAVY

As practically everyone in the Navy knows by this time, USS Canberra (CAG 2), the Navy's second guided missile cruiser, was commisioned last month. Not so well known, however, are some of the details which make this one of the most advanced examples of today's "New Navy."

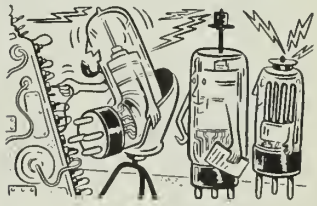
As might be expected, electronics

plays a major part in systems ranging from telephones and motion pictures to complicated fire controls for the Terrier guided missiles.

The more than 27,500,000 feet of electrical wiring, roughly equivalent to 5200 miles, included in the various electrical systems, would be sufficient for cities such as Lorain, Ohio; Kalamazoo, Mich.; or Santa Barbara, Calif.

The electronics switchboards have 100,000 contacts and employ 23,000 vacuum tubes. All of these outlets are furnished with enough power to provide the electrical needs for a city of 50,000 persons.

Canberra also has an automatic dial telephone exchange serving 210 telephones and, in addition, 1000 sound-powered phones are used.



There are 12 public address systems covering a network of 300 stations with 60 intercommunication units.

The ship's engines can develop 200,000 horsepower, to drive the ship at a speed greater than 33 knots.

The refrigeration and storage spaces provide for provisions for the crew of 76 officers and 1241 enlisted personnel for 45 days. Food stores include 16,000 pounds of sugar, 6200 pounds of butter, 4000 pounds of coffee and 60,000 pounds of meat.

The 673-foot Canberra has undergone drastic changes during her conversion. The ship's superstructure has been entirely remodeled to accommodate the new weapons. One of her two stacks has been removed, vastly offering her original silhouette. For more on Canberra, see page 54.

Sailing to Saipan for Duty? Here's What You Can Expect

SAIPAN IS A RELATIVELY small naval activity, but if you've received your orders for that spot, advance information concerning living conditions are of as much interest to you as if you were bound for Norfolk or San Diego. Generally speaking, you and your family will find Saipan nice duty.

Climate—The climate is fairly equable throughout the year. The average daytime temperature is in the middle 80s, and drops to the high 70s at night. It is rarely uncomfortable. The humidity is high, especially during the rainy season which extends from August to December. This is also the period during which typhoons are most likely to strike although they usually are not severe in this area.

Entry of Dependents—Dependents may not enter Saipan without a travel authorization from Commander Naval Forces, Marianas, and a passport. Concurrent travel is sometimes authorized. Passports should be obtained in accordance with current instructions.

Housing and Quarters—Quarters allowance is deducted from the day of arrival of dependents. All quarters, which are of the quonset variety, are furnished with an electric stove, refrigerator, deep freeze, wringer-type washing machine, dining room and living room furniture (rattan), beds, mattresses (except baby beds and mattresses), dressers, lamps, fans and mirrors. No curtains are provided. Quarters are two to three bedrooms, but the total floor area is the same.

Electrical current is 110/220 volt, 60 cycle AC.

BOQ quarters are all furnished. No wardroom or closed mess is operated. Officers eat in the general mess.

Servants—Servants are available at an average wage of $1.50 per day. Although most domestics are average, a few are excellent.

Household Furnishings — Shipment of household goods should be limited to items not likely to be affected by humidity or termites. It is recommended that dishes, linens, pots, pans, silverware, kitchen utensils, minor appliances of all kinds such as toasters, coffee pots, roasters, etc., washable bath mats, scatter rugs, baby beds and mattresses, a good short wave radio, phonograph, knick-knacks for decorations, etc., be brought along as these items are not furnished in the quarters, and are rarely available at the Navy Exchange. Good china is usually available. An "aloha" kit, consisting of a minimum number of pots, pans, linens, etc., necessary for housekeeping, is provided for use until household goods arrive. It takes 10 to 12 weeks after shipment for household goods to arrive on Saipan.

There is no laundry available. Housing allowances of washing machines are adequate to meet needs.

Baggage—Baggage should be shipped in trunks or footlockers. Hand baggage should be inexpensive and durable. It is not advisable to bring good luggage as the climate is very hard on all types of leather.

Cost of Living—The cost of living, with the exception of rent, closely approximates that of the States. Deduction of quarters allowance makes rent higher than for similar quarters in the States although all utilities are furnished.

Clothing—Washable garments are a necessity since there is no dry cleaning service available. The water is very hard and frequent washings cause them to deteriorate rapidly.

Plenty of clothing of all types should be brought as very little is available locally or through the Navy Exchange.

Uniforms: Officers should have three or four long khaki cotton trousers and a like number of long-sleeved khaki shirts, six pairs of khaki tropical shorts, six khaki tropical short-sleeved shirts, six white tropical shorts, six white tropical short-sleeved shirts, two suits of service dress whites and three or four extra white trousers. This outfit should last for a tour of duty. A khaki and/or white tropical helmet is optional and may be included in the outfit. The normal uniform of the day is tropical khaki or whites.

Officers must have all medals and ribbons, a sword if required by *Uniform Regulations,* and other accessories since these items are seldom available locally.

Health and Sanitation—Health and sanitation conditions are generally excellent.

Babies seem to thrive on the climate although almost all get heat rash at one time or another and are susceptible to impetigo.

There is a modern Navy infirmary staffed by Navy doctors on Saipan where almost all ailments can be treated. Cases which cannot be treated adequately locally are sent to the U. S. Naval Hospital, Guam.

Report Card on Navy Overseas Dependents Schools

Here are the educational facilities available at the Navy's major overseas bases.
See page 14 for story on Navy's overseas dependents schools.

Location	Facilities: Grades 1 to 8	Facilities: High School
Chia Yi, Formasa	A	B
Argentia, Newfoundland	A	B
Guantanamo Bay, Cuba	A	A
Iwakuni, Japan	A	A
Kwajalein, Marshall Islands	A	B
Midway Island	A	B
Naples, Italy	A	A
Port Lyautey, French Marocco	A	A
Saipan, Mariana Islands	A	B
Sangley Point, Luzon, P. I.	A	B
Saseba, Japan	A	A
Subic Bay, Luzon, P. I.	A	B
Tainan, Taiwan (Formosa)	A	B
Trinidad, B. W. I.	A	B
Tsoying, Taiwan (Formasa)	A	B
Yakosuka, Japan	A	A*

Key:
A—Fully accredited Stateside style instruction.
B—Correspandence caurses administered by Navy teachers (nat accredited—1955-56).
*—Students from Yokosuka attend a high school in Yokohama.

If you have an attachment for a specific salve, ointment or vitamin mixture, a plentiful supply should be brought along.

There are limited dental facilities on Saipan staffed by local practitioners. It is important that all dental work be accomplished prior to departure from the States. Emergency dental treatment is available locally, but all other dental work is usually accomplished on Guam.

Store Facilities—Saipan has both a Commissary Store and Navy Exchange. These are practically the only shopping sources available although limited amounts of merchandise are available in the stores of Chalan Kanoa (at high prices.) The Navy Exchange is small and provides little more than the daily necessities. The Commissary Store provides a fairly complete line of canned and frozen products.

If one has a favorite brand of cosmetics, a good supply should be brought along. An electric hair clipper is invaluable if one has children since the barber facilities are limited.

Automobiles—A car is almost a necessity because there are no public transportation facilities. A jeep is particularly desirable because it can go almost any place on the island whereas cars are restricted to the main roads. It is not recommended that a new car be brought. A two- to five-year-old car is considered best. The car should be in first class mechanical condition since only limited repair services are available.

Schools—Saipan has a Navy dependent School which provides instruction through the eighth grade. No kindergarten is available. High school students must use correspondence courses provided by the Navy.

Religion—Religious services, both Protestant and Catholic, are held regularly at the respective missions.

Recreation — Recreation facilities are quite numerous and include softball, baseball, golf, swimming, fishing, picnicking and "boondocking." There is an excellent nine-hole golf course, the only one in the Trust Territory. The course is open all year round. Golf clubs are available on a loan basis without charge from Special Services. Several fine beaches are available for use by dependents as well as by officers and enlisted men. Searching for sea shells is a popular pastime. Sneakers must be worn to protect the feet from coral cuts. A favorite sport is "boondocking" which is simply an exploration trip by jeep into the hills and jungle, usually in conjunction with a picnic. Photography is also a favorite hobby.

It is not advisable to bring valuable or good books to Saipan because they are quickly ruined by mildew and small termite-like bugs. It is recommended that a stock of paperback books be brought, as reading material is scarce.

NATO's Jack of All Trades

George C. Wheatley, UTC, USN, has carried the do-it-yourself trend to its logical conclusion. He's the chief fixer-upper for the six-nation Allied Forces Southern Europe, located at Naples, Italy.

Wheatley, as the post engineer maintenance chief, is charged with the up-keep of everything from water mains to the small electric sockets of the $8,000,000, 45-acre headquarters.

The Navy veteran of 16 years' service supervises 100 to 200 skilled Italian laborers and artisans daily, the amount depending on the degree of construction work being carried out on the headquarters. Besides the local civilian workers, he supervises U. S. Army, Navy, Air Force and Italian Navy personnel.

In order to maintain the 22 buildings, including a theater, chapel and athletic field, Wheatley has carpenters, plumbers, masons, painters, metalsmiths, electricians, mechanics, cabinet makers, gardeners, boilermen, sanitation specialist and clerks working around the clock.

It is not unusual for Wheatley to be called out of bed because of electrical or plumbing troubles at headquarters or to be given a few hours to set up the equipment necessary for an important NATO conference.

His daily routine takes him to all his shops where he assigns priority work and checks to see that everything is running smoothly. He keeps a watchful eye on construction of any new building or additions on the base to see that the job is being done properly. His present projects include the construction of a new medical dispensary, a large parking lot, a fire house, and a soil erosion prevention project.

Wheatley is also an industrial relations expert. He maintains high comradeship with his men—and he does it by taking a personal interest in their problems, at work and in the home.

Wheatley, who has a working knowledge of Italian, sees most of his men daily. All of them are happy with their work. Their only complaint is unusually, "Capo, the sun isn't shining," Wheatley says with a grin. "They're the most casual people I've ever met."

When a member of "Il Capo Divisione" (they call themselves the chief's team) is sick they chip in and send him a get-well gift. If the illness is serious Chief Wheatley, as a representative of his fellow-workers, goes to the ailing worker and offers assistance. Most important—the man is told his job will be waiting for him when he returns to work. This is a great morale booster to a man with a family to feed.

Talking about the craftsmanship of the Italian worker, Wheatley says: "When one says that the Italians are the best craftsmen in the world he's not joking. These men take more time than the usual skilled laborers from other countries, but the work is more polished."

If your problem is anything from a broken window or a leaking radiator to a construction job at NATO Southern Europe headquarters, those in the know will tell you to call "Mr. Fixit" or "Il Capo Wheatley," a jack of all trades and a master of one—international teamwork.

—E. J. Kosier, Jr., T/Sgt., USAF.

Report on Taiwan Tour for the Navyman Taking His Family

DUTY IN TAIWAN (Formosa) has something in common with caviar, oysters or olives—some people like it, others don't. In any event, life will be much easier and more pleasant if you have a preview of the living conditions you will encounter. Here's a brief rundown, a condensation of a pamphlet prepared by the Personal Affairs Division of this Bureau.

Per Diem — The day you depart from the U. S. you are considered to be in a travel status and as such, are authorized $9.00 per day, less deductions for government quarters and meals. The day of reporting to the naval section is considered to be as still in a travel status.

Commencing the day after arrival, a per diem rate of $5.00 will be paid until you are settled in permanent housing or for 45 days, whichever is earlier. The per diem rate for officers and enlisted men without dependents on Taiwan will then be $1.00. Officers with dependents on Taiwan are paid a per diem rate of $3.60 and enlisted men with dependents are paid $2.65 per day. After the 45-day period or when you have obtained permanent quarters, enlisted men, both with and without dependents on Taiwan, will be paid a subsistence rate of $2.57 per day, which will be credited to the pay record and paid as regular pay. Since government quarters are not available on Taiwan, you will receive BAQ at the rate of $51.30 per month if you are single.

Housing—If you do not have your dependents on the island, and are below the top two pay grades (E-7 and E-6), there are Chinese government hostels throughout the island. The hostels contain single and double rooms which rent for 75 cents to $1.00 a night in the Kaohsiung-Tsoying area. Cost of meals runs about $2.00 to $3.00 a day. The hostel prices in Taipei are slightly higher than in the Kaohsiung-Tsoying area. A number of people without dependents are living in private rentals (personnel authorized to do so at the present time are pay grades E-7 and E-6 and above).

The private rentals are for the most part Japanese-style houses of wooden frame, stucco or brick. Personnel living in private rentals without dependents generally get together two to four to a house and share costs. The initial expense for furnishings is the largest cost.

Before your dependents can join you in such quarters, the houses will require a certain amount of improvements such as screens, installation of western type toilets, bathing facilities, closet and shelf space, a hot water system, additional electrical outlets, and in many cases complete rewiring to carry the additional load of appliances, and some improvements in kitchens. In most cases, the expense of these improvements will be borne by the owner.

At the present time there is an accelerated program of building MAAG houses which conform to western standards. All military personnel are eligible for this MAAG-sponsored housing. Priority is based on the date of arrival on Taiwan.

The new private rental, western style houses currently being built are two- and three-bedroom houses, some duplex. The average rent for these houses is $75 to $100. The MAAG houses now being occupied are two- and three-bedroom houses, with a rent of approximately $70 for two bedrooms, and $85 for three bedrooms.

Household Equipment — Appliances such as electric sewing machines, fans, toasters, waffle irons, corn poppers, mixers and roasters are very useful. An electric roaster is considered to be essential by many. Pots and pans can be purchased on the local market fairly

WHAT'S IN A NAME

Canberra

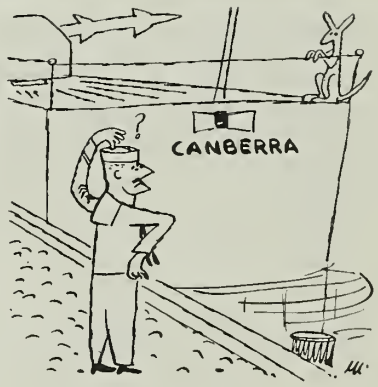
The Navy's second guided missile cruiser, USS Canberra (CAG 2), has the distinction of being the only Navy cruiser to bear the name of a foreign capital, and she was given the name to commemorate an Australian ship lost during World War II. Canberra, of course, is the name borne by the Australian commonwealth's capital; the word is from an aboriginal language, means "basin," and describes the location of the federal city in New South Wales.

The Aussie ship which bore the name (and the one whose loss our own Canberra commemorates) was HMAS Canberra, a 10,000-ton, 630-foot cruiser of the *Australia* class. She was one of the Royal Australian Navy's two heavy cruisers in existence when the commonwealth declared war on the Germans in September 1939.

Canberra #1 fought in the Mediterranean with the British Fleet, and in cooperation with the Royal Indian Navy, she bombarded Italian troops and transports along the coast of Italian Somaliland during February 1941.

She returned to the Pacific at the close of 1941, when war appeared imminent in that area. HMAS Canberra subsequently fought side by side with ships of the U. S. Fleet until she was lost (along with three U. S. heavy cruisers) in the Battle of Sava Island in the Solomons, 8-9 Aug 1942.

Our Navy's USS Canberra was originally laid down as *Pittsburgh*, but the name was changed to memorialize the Aussie ship. Christened by the wife of Sir Owen Dixon, Australian Minister to the U. S., the new Canberra was placed in commission on 14



Oct 1943. On that occasion, the Commandant of the First Naval District (Canberra was built at Quincy, Mass.) remarked that she was the first ship of the war on which planning and construction was actually accomplished during the war, and hence embodied equipment and planes that were an actual product of the war.

A plaque, replica of the Australian Canberra's badge, was presented to our Canberra on behalf of the Commonwealth of Australia. Made of Australian wood and surmounted by a Navy crown, the original plaque is mounted in the cruiser's wardroom; a bronze replica of the plaque is mounted on a bulkhead on Canberra's starboard quarterdeck.

(Webster says the word is pronounced as spelled, but our Southern Hemisphere friends insist on saying "Can-bra.")

reasonably, but not baking equipment, such as cake and pie pans and good frying pans. It is suggested that the following items be included in your family's hold baggage: an oversea-type radio; record player and a selection of records; drapes and curtains; at least one clock (non-electric as the current is sometimes interrupted for short periods), dish towels, cloths, lace mats, bath and face towels, sheets, pillows, blankets, hangers, iron and ironing board, flat silver, paring knife butcher knife, can opener, hot plate, children's small toys, games and books.

Good furniture, including overstuffed living room suites, rugs, laminated pieces, pianos and the like should not be sent out because of the high humidity and general damp climate. Any pianos brought should be equipped with a "damp chaser." Older overstuffed pieces of furniture, rugs, drapes, pianos, etc., have been brought to the island, and then sold upon departure, after maximum use. Do not bring automatic washing machines, or driers. A wringer type washer is highly recommended, as is a used vacuum cleaner.

Concurrent Travel — Owing to the present housing situation concurrent travel is not authorized. You must obtain suitable housing for dependents before they are authorized to come to Taiwan. At the present time, it is not difficult to obtain such accommodations, and the situation is steadily improving.

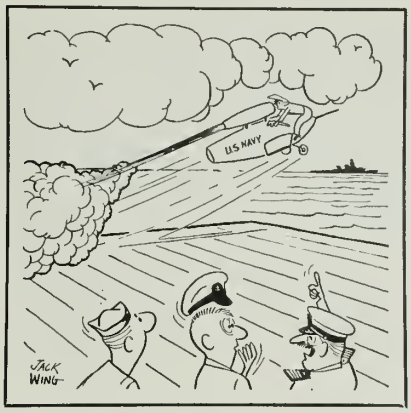
Uniforms—Winter uniform (working) for officers, warrant officers and chief petty officers is wash khaki with tie in the Kaohsiung area. Blues are required in Taipei area.

For PO1s and below the winter uniform is the same as above except the ties are not worn and garrison cap or helmet is prescribed.

During the winter months, U. S. Navy foul weather jackets are issued to all personnel.

Winter uniform (dress) for officers, warrant officers and CPOs: When dress uniform is prescribed or for social occasions after 1800, either service dress khaki or service dress Blue Bravo will be worn as designated. When civilian clothing is worn after 1800 at public restaurants, clubs, etc., a coat or jacket must be worn.

PO1 and below—When prescribed,



"Get that man's name, rate and serial number!"

wash khaki with tie. Wear coat and tie when civilian clothing is worn after 1800, in public restaurants, clubs, etc.

Summer uniform (working): The working uniform for enlisted men and officers is khaki shorts, khaki short-sleeved shirts, khaki stockings, brown shoes (with laces) khaki cap covers, garrison cap or helmet.

Service dress uniforms for officers —When prescribed during daytime officers will wear tropical white shorts, white belt, white cap, or helmet, white tropical shirt with shoulder marks, white stockings, white shoes (leather or canvas), low, laced type or plain style. After 1800 when white uniform is prescribed, the long white trousers are substituted for shorts.

Dress uniforms for enlisted men is optional.

Men's Civilian Clothing—It is suggested that you bring both summer and winter clothing. Jackets and ties are necessary on certain social occasions. During hot weather, you may wear Bermuda type shorts. Dry cleaning facilities on the island are inferior particularly in the southern part of the island. Consequently, woolens and good clothing suffer and it is suggested that expensive clothing not be brought to the island, and that emphasis be put on washable type clothing. A top coat or overcoat is an asset during the winter months, as it gets quite cold. During the rainy season a raincoat is a necessity.

Dependents' Clothing—Bring suits, sweaters, skirts, slacks and loafers. Hats are rarely worn. One or two medium weight coats and stoles would be useful. Women's underclothing is sometimes difficult to find in local PXs in the right sizes, so bring an adequate supply.

For children's outer clothing during winter: sweaters, skirts, washable slacks, blouses, long-sleeved shirts, jeans, jackets and medium weight coats, loafers, tennis shoes. "Wonder fabrics" and corduroys are good fabrics to consider. For summer: seersucker and denim playclothes, bathing suits, beach clothes, white shoes, washable play shoes and sandals. Some nylon clothing is a good choice for rainy season when it is difficult to dry clothing. Bring raincoats, umbrellas, and rainboots.

Automobiles—Most Navymen bring their autos to Taiwan. Gasoline is reasonable and purchased through the PX. All foreign vehicles are required to be insured before leaving the port of entry to the island. The following are minimum requirements: Bodily injury: $15,000 for each person with a maximum of $30,000 for each accident; Property damage liability: $10,000; Passenger medical: $1000 for each person with a maximum of $5000 for each accident.

At present, two companies are providing this coverage for approximately $20.00 per year in U. S. currency.

Nearly everyone sells his auto before leaving the island. There is a good market for new four-door cars, and the price drops with the age of the car, although older cars still fetch better prices than those obtainable in the States.

Educational Facilities — The Taipei American School is the only grade school conducted in English. It is a cooperative community effort conducted by interested parents having school age children. Grades include kindergarten through high school. Teachers are English-speaking Chinese and some are the wives of naval personnel. The greater part of the annual tuition fee (for grades one through 12) is chargeable to the U. S. government; the remainder (including kindergarten) is paid by the individual parent. Text books and school supplies are included in the tuition fee and are furnished by the school.

There are Navy-administered dependents' schools in the Tainan — Tsoying (Kaohsiung)—Chiai areas of

Taiwan. Regular classroom work is provided up through the eighth grade and supervised correspondence study is provided for students above the eighth grade.

Religious Activities — There are at present several MAAG chaplains in the Taipei area and one Navy chaplain attached to the Navy Section in Tsoying. Services are held Sundays and Holy Days. Besides the military chaplains on Taiwan, there are approximately 400 civilian missionaries representing many faiths.

"Morale" Flights — Because of the limited transportation facilities, the Naval Section in Tsoying maintains and operates an R4D aircraft with a 22-passenger capacity. This aircraft makes three flights to Taipei a week for official business, medical patients, and RandR. Each month this airplane makes a "morale" flight to Hong Kong, leaving Taiwan Saturday morning and returning Monday evening. This recreation flight carries 15 passengers to Hong Kong; 10 from Navy Section and five from Army-Air Force activities on the island, and the seats are open to both military personnel and dependents.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 12—Announced the death of Hon. Alben William Barkley, U. S. Senator from Kentucky and former Vice President.

No. 13—Announced time and place of funeral services and interment of former Vice President Alben W. Barkley.

No. 14—Announced the convening of a selection board to recommend for promotion certain categories of warrant officers.

No. 15—Called for the observance of National Maritime Day, as a tribute to the U. S. Merchant Marine.

No. 16—Contained instructions implementing the provisions of Public Law 497, 84th Congress, pertaining to medical and dental officers special pay, service creditable for pay purposes, election under the Uniformed Contingency Option Act, and adjustment of lineal position.

Instructions

No. 1000.1B—Promulgates instructions pertaining to the use of Navy bands and orchestras.

No. 1133.1C — Provides instructions regarding the reenlistment and voluntary extension of enlistment of enlisted personnel, including the authorization for extensions of enlistments for periods of less than one year.

No. 1133.10 — Provides instructions regarding the reenlistment and voluntary extension of enlisted Naval Reserve personnel serving on active duty.

No. 1223.1 — Provides for increased specialization in selected Regular Navy ratings by activating certain emergency service ratings.

No. 1320.1E—Provides revised accounting data and other instructions to be used in preparing travel orders for enlisted personnel on full-time active duty.

No. 1414.3A — Promulgates a change in the time in pay grade and time in service requirements for advancement to pay grades E-3 and E-4.

No. 1510.69 — Announces the establishment of a pilot program of advanced technical education and training for enlisted personnel, and outlines procedures to be followed in nominating men for participation in the program.

No. 1520.48 — Announces a new college training program for eligible augmented and integrated USN commissioned officers of the line, but not restricted line, with a permanent grade of ensign and above.

No. 1616.4 — Provides a new method and procedure for evaluating the performance of enlisted personnel, and a new means of recommending or requesting selection or assignment which involves individual performance.

No. 1760.15A—Informs command-

HOW DID IT START

Navy Wives Clubs

In the early '30s, a group of Navymen was transferred from the East Coast to Long Beach, Calif., and, in the normal course of events, the Navymen were followed by their families. However, some of their wives found it difficult to adjust to their new environment and were lonely.

Comparing notes, they discovered this to be an experience common to most wives of servicemen. The need for companionship and the problems they faced, drew them together into a community of interests. After a series of weekly meetings, the group was incorporated as the Navy Wives Clubs of America.

Today, Navy Wives Clubs may be found in the United States, Honolulu, Alaska, Philippine Islands, French Morocco, Puerto Rico, Cuba and Japan. Membership is composed chiefly of wives or widows of enlisted men serving in the Navy, Coast Guard and Marine Corps and in their Reserve components. Other members are wives of EMs who have been honorably discharged or are retired or in the Fleet Reserve, and women who are friendly to and interested in the cause of furthering such an organization of mutual assistance and social welfare.

Activities of the Navy Wives Clubs are numerous. Members provide assistance to Navy chaplains, assist in YMCA programs for servicemen, participate in blood donor programs and in Navy Relief Society activities. Recently it has founded a scholarship foundation which provides two scholarships each year in the minimum sum of $250 each to the son or daughter of an enlisted man of the Navy, Coast Guard or Marine Corps, either on active duty, retired, or deceased.

On the lighter side, clubs hold dances, picnics and other social activities. What's more important, membership in the Navy Wives Club enables a Navyman's wife to participate in social events among those with similar interests.

ing officers of the enactment of Public Law 147, 84th Congress, (concerned with the settlement of accounts of deceased members of the uniformed services) and emphasizes the necessity for all personnel to complete a current DD Form 93-1, "Record of Emergency Data."

No. 1910.5C – Provides instructions governing separation or voluntary retention of enlisted and inducted naval personnel on active duty under normal completion of active obligated service.

Notices

No. 1120 (16 April)—Anounced opportunities for enlisted personnel to obtain commissioned status in the Regular Navy or Naval Reserve.

No. 1223 (27 April)—Announced certain changes to the enlisted rating structure which established Signalman (SM) as a general service rating and disestablished Quartermaster Q (Quartermaster) and Quartermaster S (Signalman) as emergency service ratings.

No. 1020 (3 May)—Authorized all shipboard enlisted personnel below grade of chief petty officer to wear ship-name sleeve marks.

No. 1421 (7 May)—Announced selection of enlisted personnel and warrant officers recommended for temporary appointment to grade of ensign, USN.

No. 1001 (17 May)—Announced Change No. 1 to BuPers Inst. 1001.-21, which is concerned with retention on active duty and recall for enlisted Naval Reserve and Fleet Reserve personnel.

No. 1085 (17 May)—Announced availability and effective date of Record of Practical Factors (NavPers 760) for certain ratings.

No. 1430 (17 May)—Provided information regarding the advancements resulting from the February 1956 examinations and the opportunities for advancement which it is estimated will result from the August 1956 examinations.

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH IS ON PAGE 9

1. (b) They indicate the port and starboard sides of a channel.
2. (a) The can buoy is all black and the nun buoy is all red.
3. (c) Engine speed of the flagship.
4. (a) Ahead standard.
5. (a) Mike and Xray.
6. (b) Blue and white.

Where to Find Info on Opportunities for Commissions

For ambitious, qualified Navymen, there are numerous opportunities to obtain commissioned status in the Regular Navy or Naval Reserve. Here's a list of programs which continue from year to year:

PROGRAM	ORIGINAL APPOINTMENT	GOVERNING DIRECTIVE	APPROXIMATE SELECTIONS (FISCAL YEAR 1957)
Integration	Ensign, USN	1120.18C	200
Limited Duty Officer	Ensign, USN	1120.18C	200
Naval Academy	Ensign, USN (After graduation from Naval Academy)	1531.2	160
NROTC	Ensign, USN (After graduation from NROTC University)	1111.4B	200
NavCad	Ensign, USNR (After completion of flight training)	1120.20A	400
Officer Candidate	Ensign, USNR	1120.98	200
or		1120.10A	
Aviation Off. Candidate	Ensign, USNR	1120.11A	
Warrant Officer	Warrant Officer	1120.18C	600

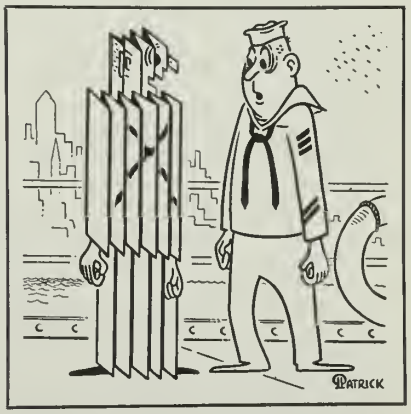
Latest Changes in Enlisted Rating Structure Are Approved, New ESRs Established

The New Navy is shaping up. Not only are new weapons and techniques under development, but so are Navymen's jobs. As a result, some new ratings have been established, others discontinued. Here's a summary of the latest changes.

On the basis of the findings of the Permanent Board for Review of the Enlisted Rating Structure, which is responsible for the study and evaluation of all recommendations for new ratings and elimination of others the Secretary of the Navy has:

- Established Signalman (SM) as a general service rating (see ALL HANDS, May 1956, page 12).
- Established under the Aviation Fire Control Technician rating, Aviation Fire Control Technician B (Bomb Director) and Aviation Fire Control Technician F (Aircraft Armament Control Systems) as emergency service ratings.
- Established under the Air Controlman rating, the following emergency service ratings: Air Controlman R (Radar); Air Controlman T (Tower); and Air Controlman W (Airborne CIC Operator).
- Established Parachute Rigger S (Survivalman) and Parachute Rigger M (Maintenance) as emergency service ratings under the Parachute Rigger rating.
- Established Tradevman R (Repairman) and Tradevman I (Instructor) as emergency service ratings under the Tradevman rating.
- Disestablished the following emergency service ratings: Quartermaster Q (Quartermaster); Quartermaster S (Signalman); Tradevman R (Repairman, Nonaviation); Tradevman I (Instructor, Nonaviation); Tradevman V (Repairman, Aviation); and Tradevman U (Instructor, Aviation).

Implementation of these rating changes will be accomplished by future directives. Personnel will continue to advance in the ratings they now hold, and they will not be changed from one rating to another until further instructions are made available.



"She closed the door in my face! One of those modern folding doors."

BOOKS WIDE VARIETY FOUND IN THIS MONTH'S SELECTION

EVEN IF YOU DON'T LIKE to read—much—you'll thoroughly enjoy ***Picture History of the U. S. Navy,*** by Theodore Roscoe and Fred Freeman, one of the new volumes available at many ships and stations this month.

The story of the American Navy, from the earliest day of the Revolutionary War to the 20th Century, is told here with a wealth of pictorial detail. The fighting ships, the fighting men and the engagements in which they fought, live again in the illustrations and text of this book.

It covers all the wars, big and small and, by means of pictures, plans and detailed text, it traces the evolution of major naval ships as well as recreating the life of the ordinary sailor. By presenting the rival captains and their ships facing each other on the page, *Picture History* gives you a concise view of both sides of the story in each war. In between the active campaigns come the periods of development—the 1812 version of *Nautilus,* the ship life of the mid-19th Century, the voyages of Perry and Wilkes.

Coverage is especially strong on John Paul Jones, the Civil War and the Korean War of 1871. The brisk, journalese style of the text which accompanies the more than 1200 illustrations will lighten the burden of learning.

Another picture book of an entirely different nature is ***The World's Warships,*** by R. V. B. Blackman, which might be considered as a pocket edition of Jane's Fighting Ships, of which Mr. Blackman is editor. Small enough to slip handily into almost any pocket, it is a concise and authoritative survey of the modern fighting ships of the world's navies. The ships are arranged by class for easy reference and are illustrated by more than 100 photographs. Details include tonnage, armaments (within security restrictions) and specifications and, in the case of smaller craft, a list of sister ships. It is available to those ships and stations which had not earlier received a copy of *Jane's.*

Not yet in the history books (but it will be) is the name *Trieste,* Dr. Auguste Piccard's bathysphere, described in considerable detail in ***Earth, Sky and Sea.*** This is the story of a scholar, physicist and master technician whose pioneering investigations have made accessible areas of the world which are usually reserved for science fiction. In this book, Dr. Piccard tells of his triumphs of penetrating the stratosphere and descending the depths of the sea. He describes in detail the mechanical and technical problems encountered in the construction of his unusual machines.

Want to control the destinies of yourself and your fellow men? A step in this direction is a study of any one of a number of books on the psychology of leadership. A volume which is, by a strange coincidence, titled ***The New Psychology for Leadership,*** by Donald A. Laird and Eleanor C. Laird, is one such book. It tells you how to streamline your supervisory techniques by applying the results of recent research. Almost everybody in the Navy supervises someone.

An entirely different type of leadership is described in ***The Long Walk,*** by Slavomir Rawicz. It's a true tale of escape from a Siberian World War II prison camp, during which the author with six fellow "convicts" and later a girl, make their escape by walking—literally—the length of Asia to India. While evading capture they experience snow, heat and hunger as they cross the deserts and mountains across the endless Siberian wastelands, the Gobi Desert, Tibet and the Himalayas. They learn to eat and like snake meat and to ease their thirst with mud. They face the famous "abominable snowman." Four survive. An incredible and fascinating story.

For something in a lighter vein, but still good reading, you might try ***The Spirit of Adventure,*** which is edited by Whit Burnett. Many of the selections come from recent books and authors who might be familiar to you, such as Heyerdahl, Diole, Hunter, Hunt and Hillary, Herzog, Byrd, Cushman and Yazieff. There are also fictional episodes from Huckleberry Finn, Robinson Crusoe, Baron Munchausen and Don Quixote, as well as stories by Joseph Conrad and Graham Greene.

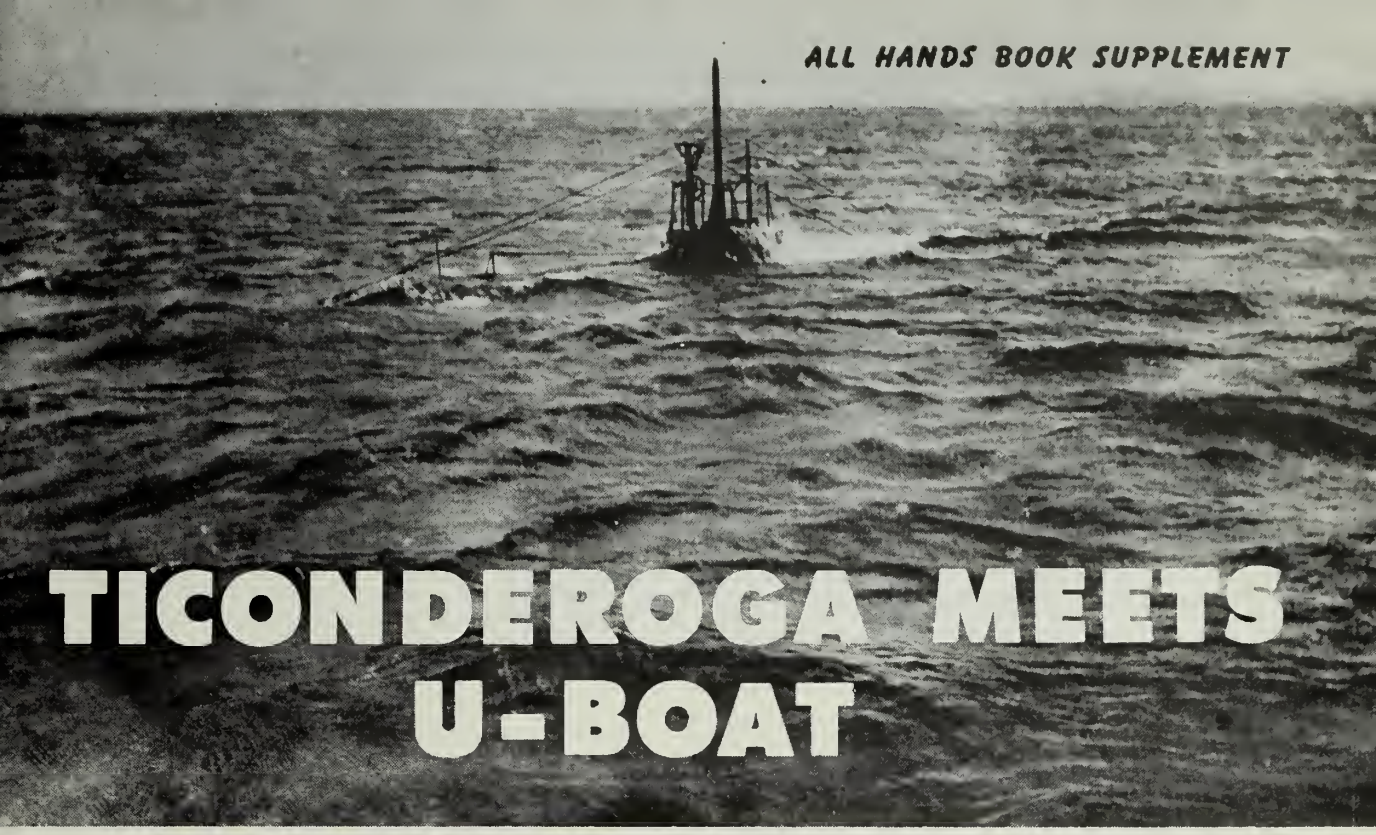
The encounters cover a wide range—from the depths of the sea and cave to outer space, from the Sahara to Thule, from the testing of a bull fighter to a jet pilot.

For a complete change of pace, you can relax with Marion Hargrove's ***The Girl He Left Behind.*** True, it's about an Army draftee, but if you look closely you may detect certain points of similiarity in your own military experience. It's a sort of informal handbook of Army base training, presented along the lines of *See Here, Private Hargrove.* It tells of the kind of men Andy Schaeffer meets as an Army recruit, how they talk, what they learn and what they think about it. Some of the men you'll like, some you'll recognize and some you wouldn't want to know at the end of a ten-foot pole. But it's all in fun.

SONGS OF THE SEA

Nancy Lee

The harbor's past, the breezes blow,
Yea ha! lads, ho! Yeo ho! Yeo ho!
'Tis lang ere we come back, I know,
Yeo ho! lads, ho! Yeo ho!
But true and bright from morn till night my home will be,
And all so neat, and snug and sweet, for Jack at sea;
And Nancy's face to bless the place, and welcome me;
Yeo ho! lads, ho! Yea ho!
The bo's'n pipes the watch below,
Yeo ho! lad, ho! Yeo ha! Yea ha!
Then here's a health a-fore we go,
Yeo ha! lads, ho! Yea ha!
A lang, long life to my sweet wife, and mates at sea,
And keeps our bones from Davy Jones, where e'er we be!
And may you meet a mate as sweet as Nancy Lee.
Yea ho! lads, ho! Yea ho!



TICONDEROGA MEETS U-BOAT

Heroism is where you find it. In the face of almost inevitable defeat it stands out even more than in victory. The men on board *USS Ticonderoga*, a cargo ship that met a German U-Boat in the mid-Atlantic, demonstrated high courage not only in battle against great odds, but as survivors after their ship went down.

On the morning of 30 *Sep* 1918 *the* 5130-*ton cargo ship* USS Ticonderoga *was in the middle of the North Atlantic run, eastbound in a convoy of* 24 *ships escorted by the cruiser* USS Galveston. *She was loaded with a cargo of railway ties, and she had as passengers two officers and* 113 *enlisted personnel of the Army. It had been rough and rainy during the night. There had been some trouble with the engines. When Ensign Gustave Ringelman took over the watch at* 0400 *he found that although the convoy speed was only* 9½ *knots the* Ticonderoga *had dropped five miles behind position.*

If there were any U-Boats in the vicinity her position was precarious, but as she was now making the same speed as the convoy, there was nothing to do but to hold on until the engineers could get a few more turns out of her.

At 0530, *in latitude* 40°05'N., *Longitude* 38°43'W., Ticonderoga *sighted a German submarine.*

Upon sighting the submarine, the cargo ship's skipper, LCDR James J. Madison, USNRF, *had taken over the*

USS TICONDEROGA—a WW I cargo ship, rides at anchor in Boston 10 days before sea battle with German U-Boat.

bridge and ordered the officer of the deck to his battle station at the after gun. The captain saw that his enemy was lying broadside to port and there was an excellent chance to ram. He ordered emergency speed ahead, left full rudder, and the lumbering Ticonderoga *swung heavily to port.*

A part of the story of Ensign Gustave Ringelman, who was officer of the deck at the time the submarine appeared, is quoted here:

THE SUBMARINE WAS SIGHTED at first about 200 yards off our port bow awash, the whole length showing. I reported to the commanding officer immediately and ordered the forward gun crew to open fire. The forward gun had its gun cover on because during the night it had rained, and there was a heavy spray, and we needed the gun cover on to protect the gun.

Immediately the captain put his helm hard to starboard and came within 25 feet of ramming the submarine. [The submarine apparently became aware of the danger at this time and forged ahead, and *Ticonderoga* missed her quarry by feet. The U-Boat now crossed ahead to secure a raking position. Captain Madison again tried to ram and again almost succeeded.]

Before we could get a shot off, the submarine fired an incendiary shell which struck our bridge, killing the helmsman and practically putting the navigation of the ship out of commission, crippling the steering gear and setting the amidships section ablaze.

LCDR Madison, captain of *Ticonderoga,* was severely wounded by a piece of this shell. [Although in great pain, he ordered his men to lift him to a chair on the bridge so that he could direct the action against the enemy. He remained conscious until *Ticonderoga's* crew received their last order.]

This all took place in as short a time as it takes to tell it. I had charge of the six-inch gun aft.

The submarine fired with the aft gun at our three-inch forward gun, killing the gun crew. They fired six shots, putting the gun out of commission. She then steamed around our starboard side and opened up her distance a little bit, opening fire again. We replied with our six-inch aft gun.

I am not exactly sure, but I should say the distance was now about 4000 yards. That was my range, I believe, and the submarine gradually opened up the distance between us to about four miles.

Meanwhile the submarine was shelling us and we were answering her shots. During this time most everybody on board our ship was either killed, or wounded to such an extent that they were practically helpless from shrapnel. [The first shell that struck the bridge had done great damage. Not only the helmsman but all the watch were killed, except the captain and Ensign Staffor, the navigator, both of whom were wounded. It put the radio out of commission, killed the operator and started a fire amidships. A second shell struck the bridge and wrecked it completely. It killed the navigator, put the wheel and communicators out of order, set fire to the bridge and again wounded the captain who was blown off the bridge to the deck below. A third shell hit the forward gun and swept it and the entire gun crew over the side.]

The lifeboats hanging on the davits were shelled and full of holes, others carried away. However, we kept the submarine off until our fire was put out and our boats swung out on the davits, ready to abandon the ship with the few men left on board. Possibly 50 were left by that time—the rest were dead.

Well, at 7 o'clock up comes the submarine again, off the starboard quarter.

Meanwhile we had also several boats which were swamped immediately, due to the falls carrying away—the submarine had shot them away—and holes in the boats, and there was not another boat got away that I could see. Every boat that attempted to get away was either swamped, or something happened to it.

The submarine fired at us again for the second time at a range of 10,000 to 12,000 yards, and there were only three left on our six-inch gun as a gun crew—a chief boatswain's mate, a gunner's mate, and myself. We manned that gun until a shell struck us underneath the gun and put the gun out of commission, as well as ourselves, disabling us. The submarine still continued to shell us, and then came alongside off our starboard beam and fired a torpedo which struck amidships in the engineroom.

* * *

Twenty minutes after the first attack U-152 *appeared about two miles on the starboard quarter. She had used the time to get in a safe position before coming up to renew the attack. She now raked* Ticonderoga *systematically from bow to stern with shrapnel.* Ticonderoga *replied with the six-inch gun but had had exceptional difficulty getting on as the* U-152 *was increasing the range from* 4000 *to* 8000 *yards. As described above, within a few minutes only Ensign Ringelman and two enlisted men were left to serve the gun. All the other members of the gun crew had been killed.* U-152 *then scored a direct hit under the gun which killed the two enlisted men and wounded Ringelman.* U-152 *increased the range to* 12,000 *yards and continued the heavy fire until it was apparent that there was no resistance when they again closed the range.*

Ensign Clifford T. Sanghove, USNRF, *third engineer of the* Ticonderoga, *gave the following version of the attack.*

AT THE TIME [the ship sighted the submarine] I was in my room; an eight-inch shell which crashed through the room woke me up. From that time on I was busy.

I went down to the engineroom and organized gangs to fight fires which had started. Some of the men would be shot away and I would have to organize a new gang. I was the last man to leave the engineroom, and I tried to get fresh water started to relieve the wounded men on deck.

While I was down in the engineroom a torpedo struck the ship and I was pinned up against a bulkhead and the grating by the bulge of the bulkhead from the explosion of the torpedo. This torpedo was nearly the last thing fired by the submarine, and it struck right aft of the engineroom bulkhead on the starboard side. I was crushed about the chest and hips at this time.

During the attack I was at various places down in the engineroom, on deck and near the steering gear. As the first assistant engineer was on watch, I assisted wherever I could.

No shells struck the engineroom except around the upper hatches. From the time the torpedo was fired

---

From *German Submarine Activities on the Atlantic Coast of the United States and Canada,* by Historical Section, Office of Naval Records and Library, Navy Dept., Government Printing Office, Washington 1920.

SURVIVORS of *Ticonderoga* huddle in remaining lifeboat as the enemy submarine comes alongside to question crew.

until the vessel sank, approximately 15 minutes elapsed. The vessel finally sank two hours and 15 minutes after the attack began. Her amidships rail was right on the water level. After the torpedo was fired we got some of the wounded together and got some water and blankets together, and then placed a few of the wounded on the raft, which I helped to launch from the deck house, which was 20 feet above the water at the time. The raft went into the water with two or three wounded men who were still clinging to it. This raft was the last thing to leave the ship. There were 13 lifeboats altogether aboard.

* * *

What happens when the survivors are face to face with the enemy—a submarine bearing down on a raft and an open boat? The crew of Ticonderoga *did not panic. Ensign Ringelman continues his story*:

THERE WAS A LIFE RAFT left on the top of the deck house. We got our wounded men together, lashed them to the life raft—that is, those who were able to do this—and shoved the life raft off from the ship. Possibly three or four minutes after that she took the final plunge.

After *Ticonderoga* had sunk, the submarine came alongside and had already picked up the executive officer out of the water and made him captive. They took the first assistant engineer off the life raft and made him a captive also.

They asked us several questions; wanted the captain and the gunner; where bound for, and where from; threatening us.

After getting no information they shoved off. Now, before she came to us she had been alongside the only lifeboat that had stayed afloat, and the captain was in that, but they did not see him. The captain was severely wounded and was lying on the bottom of the boat. One of the German sailors went into the lifeboat and made a line fast by which she towed the lifeboat a few yards, but the line parted when they speeded up.

After that the submarine made off but stayed in the vicinity. Several shells before this had fallen rather close to the life raft and it also looked as if they meant to shell the boat but gave it up.

Now, I will tell you how we got into the boat. This lifeboat, the only one afloat, drifted down onto the life raft, and the captain of the ship, who was in the boat, called for myself and several others to get into the boat, as there was not a single sailor in that boat to handle her, there being nothing but soldiers in it, and a high sea running called for somebody to be in that boat to handle it.

A few of us got into the boat, which still left a few on the raft—a few unconscious men and some that were not very badly hurt. The sea separated the raft and the boat and we made sail and attempted to get back to the raft in order to tow it, as they had no food on it. The wind and sea grew in violence and after many futile attempts to come alongside of the raft we had to give up the idea of getting a line to it. We made sail in the small boat in case another ship or a rescue ship should come along we would be away from the submarine.

Third Engineer Sanghove tells his experience:

THERE WERE EIGHT OR NINE men on the raft with me; this was before launching and they drew it in toward the railing and we jumped on it ourselves after launching it. I was the next to the last man off the ship.

There were a number of potatoes and boxes on the after deck, which floated off the vessel as the after part sank, and the submarine picked up a number of these boxes, cruising around meanwhile.

We remained on the raft until 2 o'clock in the afternoon, when we drifted toward the captain's lifeboat and I was among five of the men who left the raft and got into the lifeboat, as when the raft came close to the lifeboat they shouted that there was no one in the boat able to man it, all of them having been wounded.

The submarine came alongside the raft and spoke to us. They asked who it was tried to ram them and where was the captain and where was the gunner; how many

CAPTIVES OF ENEMY—LT Muller and LTJG Fulcher are taken aboard German submarine for questioning.

soldiers were aboard; where we left and where we were going. The chief machinist's mate was taken aboard the submarine for a time and then finally returned to the raft, and was probably lost, as the sea was high and we never saw the raft again.

The first assistant engineer was also taken aboard the submarine and kept a prisoner. His name is Fulcher. He was a lieutenant (j.g.). I believe the executive officer, Mr. Muller, had been picked up from the water and also taken aboard the submarine and kept a prisoner.

An extract from the story of the Chief Quartermaster, George S. Tappley, adds further details to the story of survival:

MOST OF THE LIFEBOATS were full of holes from shrapnel. At about 7:15 the captain was put in the last boat on the vessel, together with 14 soldiers, and the boat was lowered away. That was the only boat that got away clear. I reported to the executive officer that our six-inch gun had been disabled by shellfire, and the vessel could not be steered from the steering engineroom.

I picked up a piece of plank but for some reason I thought better of it, and looking around I saw a raft on top of the boat deck. I made my way up to that and there found 12 men, three of them were very badly wounded lying on top of this small house alongside the raft. I asked them why they were lying there, and soon found out, for just then a shell struck about two feet under me, going directly through the small house.

We then put the three badly wounded men on the raft, and pushed it into the water, about 20 feet below. A few minutes after getting on the raft the vessel went down, stern first, sinking completely in about 10 seconds. We then drifted off on the raft.

The only boat that got away was about one mile to windward of us, but all the time drifting nearer. When it came alongside five of us from the raft got in the boat, intending to tie a line to the raft, but the wind was so strong that we couldn't do so. We tried for four hours to get back to the raft to give her a line, but the wind prevented us from doing so. We then hoisted a small sail on the bow of the boat, in order to keep her stern to the wind, and this way we spent the night. The next morning we took an inventory of the supplies, and found we had eight gallons of water, two cans of hardtack, one case of apricots, and one case of pineapples. There were 22 men in all, including the captain, who was very badly wounded. We at first decided to try and make Newfoundland, but the captain said northwest winds started blowing about this time of the year, so we abandoned the idea and commenced to steer east-southeast for Spain. Bad weather had set in and we thought we saw two ships on the horizon, but we were not sure. Each man's rations consisted of one apricot and two spoonsful of juice twice a day. We continued pulling on our course all that day. That night the sea started to run very high, and we had great difficulty in keeping the boat from swamping. On the third day the sea became more moderate, and we made perhaps 60 miles to the eastward. The captain was feverish and delirious at times, and it was necessary to give him water at frequent intervals to keep his fever down. The men in the boat were behaving as well as could be expected, except that they were constantly complaining about not having water. On the fourth day the weather calmed down, and the sea was moderate.

At about 7 a. m. we sighted a ship away off on the horizon heading west, but apparently she did not see us. At about 1 o'clock smoke was sighted dead ahead, and in the course of an hour's time the s.s. *Moorish Prince* came alongside and picked us up.

What happened to the men taken on board the submarine? Here's the story of their experience, and incidentally a report of the effects of psychological warfare on the enemy:

MULLER AND FULCHER were taken separately, sent below and isolated. Neither knew of the other's presence

on board for four days. Muller, whom Capt. Franz, commanding officer of the submarine, supposed to be the captain of *Ticonderoga,* was picked up at 9:20. Franz, standing amidships, demanded: "Where's the chief gunner? Where's the chief gunner's mate?"

"Dead," replied Muller.

Franz was under the impression that the *Ticonderoga* after gun had continued firing after the sheet had been hoisted.

Fulcher was taken to Chief Engineer Heine's room, where shrapnel was cut from his leg, and he was given brandy and overalls by the ship's surgeon, whose name, by coincidence was Fuylcher. He was kindly treated, and the pair conjectured upon their relationship. Meanwhile Heine kept saying, "Why do you call us Huns? We are no more cruel than you." This soreness, testifying to the effect of Allied propaganda, prevailed insistently among the submarine's officers. Their tune at first was "Why did the United States enter the war? See what you get now for coming in."

The captain came in and said to Montau, a CPO, "Take the prisoner and show him where he will sleep." Fulcher went to the forecastle, where about 35 men were quartered in permanent bunks. He was given a lower one, which he occupied for the rest of the voyage. The surgeon came each day and dressed his wounds. He messed with the warrant officers, as did Lieut. Schwarz, radio officer. Muller ate in the wardroom, but the food in both messes was the same, white bread twice a week, plenty of wurst and butter, canned brown bread, etc. Muller also was continually asked why we came into the war: "Why do you call us barbarians? We are only doing our duty," was repeated over and over.

U-152 had left Kiel 5 September on an outbound voyage to the American coast. It was only her second trip. All the time that they were aboard, the two Americans were allowed on deck, except during the various actions with merchant ships that ensued. They were then sent below, but managed to secure information of happenings there. They also learned, chiefly from the crew, many of the orders that came by radio. They were always well treated. The *U-152* remained on the surface except when forced by the presence of Allied craft to dive.

On 11 October this message came in code—as did all others: "Engage men of war only. The merchant war has ended." The Americans were told that this was, "The first act of our new government." Course was now changed to SE.

Various courses on the surface were now steered for a few days. A torpedo was fired at a British steamer on the 17th, but as it was not heard to explode, probably missed. The submarine dived, but 10 minutes later came to the surface and engaged the steamer in a gun duel. The latter fired 40 shots, none of which hit *U-152,* and the submarine 83; range and effect not learned by the prisoners. This was in the late afternoon, and had continued for two hours. The steamer was making more speed than the submarine, and now escaped.

On 20 October came the radio "All submarines return to Kiel." *U-152* set course NE., till she had rounded the Faroe Islands. She entered the northern mine barrage at 4 p. m. 11 November. She proceeded at full speed on the surface, through its center, and the Americans were told that the mines had been passed at 4 p. m., on the 12th. They woke to learn that the officers had heard of the signing of the armistice. All hands seemed pleased that "the war was over." Lieut. Schwartz admitted that for many months Germany had been waging a losing fight, because the United States had intervened.

The Skagerack was entered on the night of the 12th. *U-152* encountered *U-53* (Hans Rose's famous sub), and tied up to her from 9 to 11 p. m. Von Schrader had replaced Rose in command. He stated that about six weeks previously *U-53* had torpedoed a United States escort ship at the entrance to the Bristol Channel. *U-53* was not certain of her name, but it sounded like *Tampa.*

U-53 also declared that she had left Kiel owing to the revolution; that her officers and men were loyal to the Kaiser, and that she was bound for Sweden. Apparently uncertain about this step, however, she proceeded back toward the Baltic on the morning of 13 November, leading *U-152* through the mine fields. The latter continued into the Sound, after the *U-53* went ahead at 15 knots for Kiel, and she anchored near Copenhagen on the evening of the 14th. Here two radio messages were received: One from *U-153,* saying that all was calm at Kiel, but that she was leaving to intern in Sweden. Another from the Commandant at Kiel ordered *U-152* to return to port.

Capt. Franz now held a meeting of the officers and crew, and took their vote as to whether the sub should go to Sweden or to Germany. Of the crew of 80, about 10 favored interning, and 70, Kiel. As the submarine got underway, Franz said to Muller and Fulcher: "You two gentlemen are now free. You are no longer prisoners of war. I don't know whether we shall finally reach Kiel or Sweden, or Denmark; but rest assured that in any case you will be safe. I shall protect you at all hazards. Whatever we do, you will be well off."

* * *

The crew of USS Ticonderoga *fought the enemy to the bitter end, until there were just a few men left. The handful that remained took care of their wounded, then fought for survival on the high seas. Their struggle did not go unnoticed. Among those who were awarded the Navy Cross were the following: Chief Machinist's Mate Rudolph Alicke, Ensign Ringelman, Ensign Sanghove, and Lieutenant Frank L. Muller. To LCDR James J. Madison went the Medal of Honor. Praising the prolonged and gallant resistance of* Ticonderoga's *crew under his command, the citation stated: "Lieutenant Commander Madison was severely wounded early in the fight, but caused himself to be placed in a chair on the bridge and continued to direct the fire and maneuver the ship. When the order was finally given to abandon the sinking ship, he became unconscious from loss of blood, but was lowered into a lifeboat and was saved, with* 31 *others, out of a total number of* 236 *on board."*

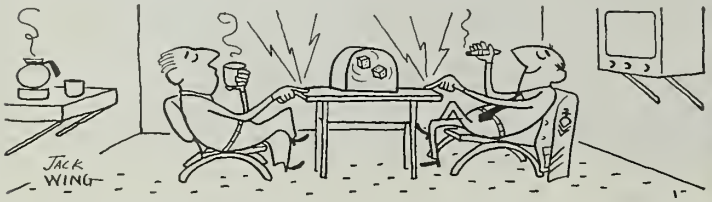
CREW of *U-152*, now on the defeated side, with their two American ex-prisoners at Kiel, 15 Nov 1918.

TAFFRAIL TALK

THESE MODERN GADGETS may well be all very well, but there comes a time when we must call a halt, and this is it. In the CPO lounge of NAAS Mustin Field, Philadelphia, Pa., is an electronic gimmick called "The Schwann Kick," after its creator CDR J. J. Schwann, USN.

It's used, we're informed, to aid the hardworking Chiefs to play acey-deucy. A pushbutton on each side of the table is interconnected with a solenoid beneath the table, which actuates a plunger, causing the hinged portion of the device to kick the dice up and into the scramble blocks and back to the bottom of the mixer. Push the button and your dice are rolled for you.

Acey-deucy players of the world, arise!



One thing can be said for the hobby of Larry J. Cate, GMSN, of *USS Forrestal* (CVA 59)—it's different. He spends his free time tossing bottles into the sea.

Not just any old bottle, but one with a note in it. Part two consists of watching the bottle float away from the ship until it's out of sight, then hoping that someone on a distant shore will find it and notify the sender of its arrival. Since 1954, when he tossed his first note overboard from *USS Capricornus* (AKA 57) he has launched more than 50 bottles. Not long ago, his persistence paid off. One of his notes was found in the Bahamas, about 105 miles from the spot where Cate chucked it over the side. Now Cate is heckling his friends to save all their old bottles for him.

The Navyman serving overseas has a two-hat job. In addition to his regular duties, he serves as a representative of the United States. A tribute, quoted here in part, to be found in an editorial from a Shelburne, Nova Scotia, newspaper, shows that many a Navyman performs valuable services to his country wearing his second hat:

"These young men came to us as strangers and are departing as friends. By their conduct and their friendliness they not only upheld the fine prestige of the United States Navy but also were ambassadors of goodwill that cannot help but add further warmth to the regard in which we hold the American people.

"We are sorry to see our American visitors leave, and we would like them to know we were glad to have them with us."

The All Hands Staff

The United States Navy

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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• AT RIGHT: PO PROMOTIONS — Framed by ship's bell and wheel H. R. Jumper, SO3, USN, is presented Certificate of Advancement in rating from CAPT D. F. Weiss, USN, Deputy Chief of Staff, ComNavFE. A total of 49 Navymen from the staff received certificates.

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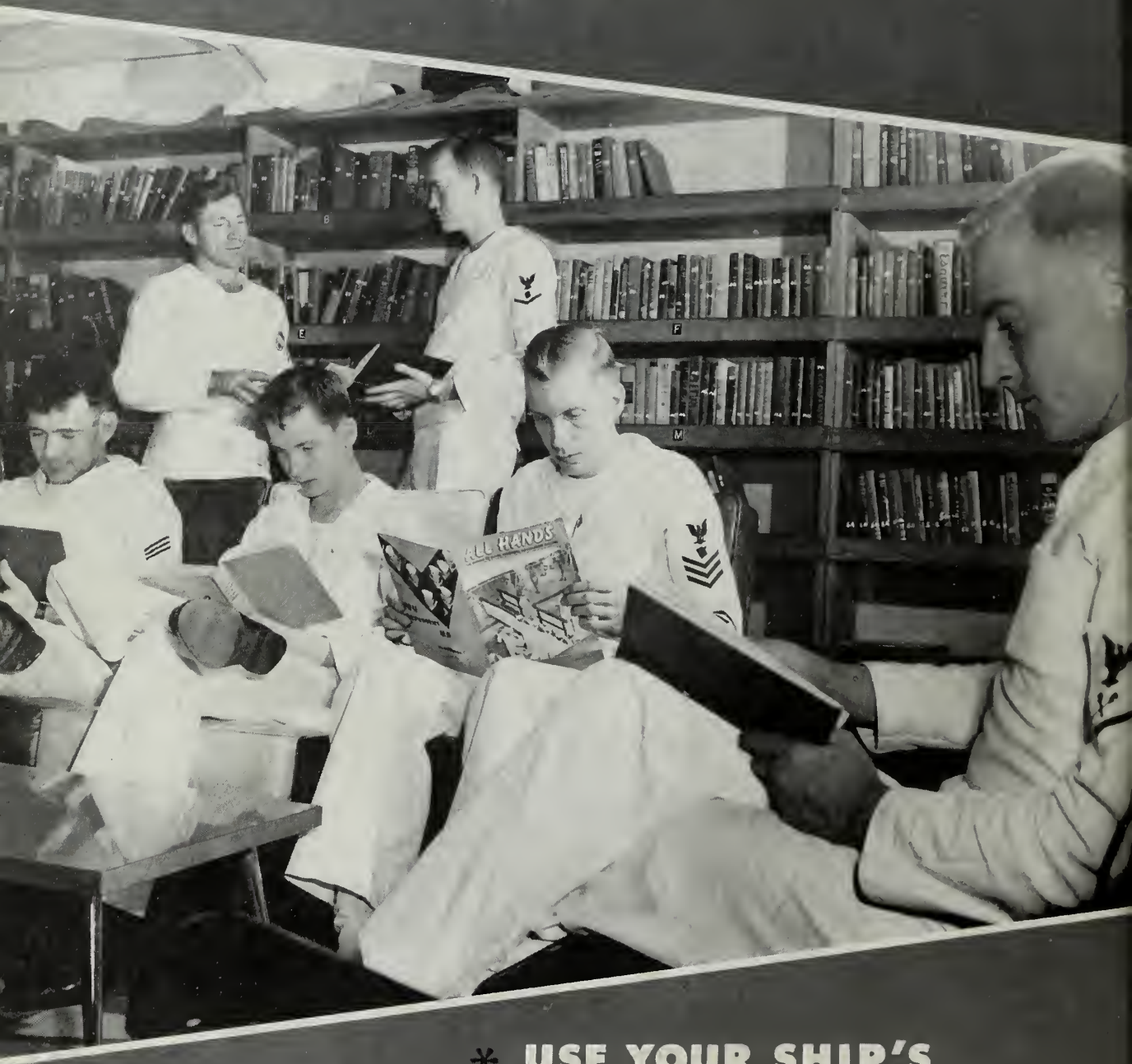

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AUGUST 1956 NavPers-O NUMBER 474

VICE ADMIRAL JAMES L. HOLLOWAY, Jr., USN
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• FRONT COVER: BRINGING HER IN—Bridge gang of USS *Ronkin* (AKA 103) works on the attack cargo ship's flying bridge as the navigator stands by the pelorus to take cuts as the ship enters heavy harbor traffic.

• AT LEFT: GOING TO SEA: Small mobile crane is loaded aboard a beached LCU while DUKWs roll through doors of USS *St. Cloir County* (LST 1096) during preparations for joint Navy-Marine amphibious exercises in Pacific.

• CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated. Sequence on page 40 by Larry Sharkey, Los Angeles Times.

DAMAGE CONTROL team member goes overboard for his ship as he repairs damage to ship's hull that was caused by running afoul of floating ice.

DC Teams

DAMAGE CONTROL is a term to conjure with during time of war — for some outstanding examples of what DC teams can do, check their accomplishments in World War II. But in peacetime most Navymen tend to forget about damage control until a period of general drills finds them on a repair party — or until some unforeseen mishap demands the courage and latent talents of every man jack in the ship's crew.

In war, in peace, in port or at sea, damage control know-how is one of the most vital bodies of knowledge possessed by the Navyman. Two recent collisions—that of USS *Eaton* (DDE 510) with *Wisconsin* (BB 64) and USS *Floyd B. Parks* (DD 884) with the heavy cruiser *Columbus* (CA 74)—are examples of how damage control can keep an accident from becoming a major tragedy.

Parks and *Columbus* crossed courses while engaged in night maneuvers in the South China Sea area, some 250 miles off the Luzon coast. The resulting collision cost *Parks* two men lost and 50 feet of bow; further loss was prevented by the rapid, effective damage control aboard the destroyer. Repair parties in the after part of the destroyer were the first to muster, and they set watertight integrity throughout that area before heading forward to help control damage where it was greatest.

Since attempts to pump out *Parks'* flooded forward compartments were not successful, all effort was concentrated on establishing a watertight boundary at the first watertight bulkhead aft of that compartment. A new boat boom had to be cut up in the process, but shoring was completed in record time.

Escort destroyer USS *Eaton* (DDE 510) sustained a 30-foot gash in her bow while underway in fog-bound waters near Cape Henry, Va. Coming about in response to a man overboard call, *Eaton* inadvertently crossed *Wisconsin's* bow and collided, but here again hair-trigger DC measures quickly lessened any chance of sinking. A salvage ship and a fleet tug were dispatched to *Eaton's* aid and both ships made port without further incident.

To go back to World War II — take the cases of USS *New Orleans* (CA 32) and *Minneapolis* (CA 36), both badly damaged during the Battle for Tassafaronga (off Guadalcanal) at the very end of November 1942. *Minneapolis,* hit by a spread of torpedoes as well as a rain of enemy main battery fire from cruisers and destroyers, wound up aflame and flooding as the enemy force attempted to retire. The flooding water helped to hold in check fires which soon were extinguished by efficient fire-fighting teams.

While her main battery continued to blast the enemy, all available hands in CA 36 were turned to pumping, shoring, patching and jettisoning heavy gear to reduce the cruiser's list. Despite brief loss of steering control, "Minnie" made her way to the secluded harbor of Tulagi, 18 miles away, all the while continuing to jettison heavy gear.

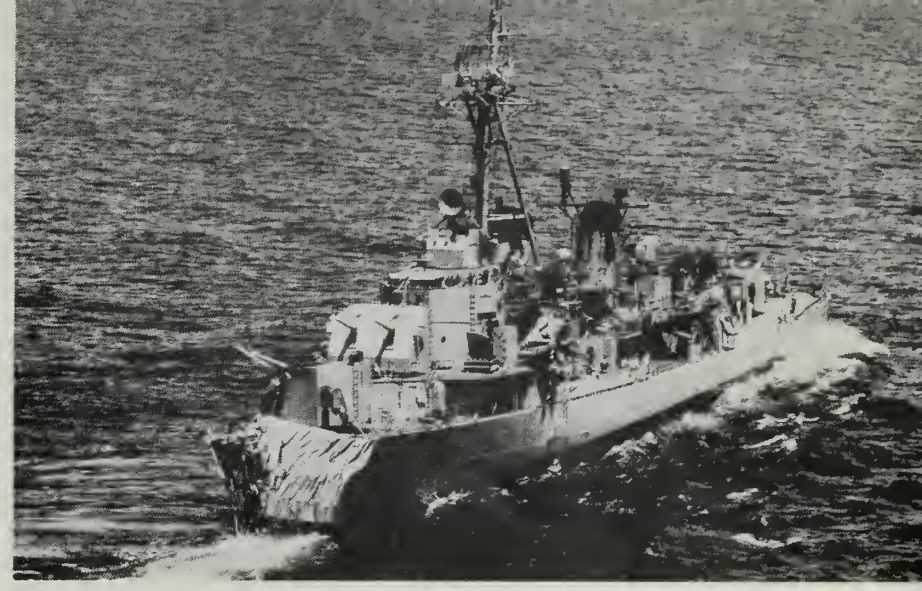
Once in the harbor *Minneapolis* was moored to coconut trees and stumps, while Seabees and a minesweeper's salvage pumps helped the ship's crew make sufficient repairs to hold up during the long haul home to Mare Island.

New Orleans in the same engagement was hit by an enemy torpedo which exploded thousands of gallons of gasoline and a forward magazine. The forward section of the hull (including Turret No. 1) was blown away and scraped aft along

the cruiser's port side, damaging one of the propellers.

Heroic damage control teamwork kept *New Orleans* afloat despite the crushing blow. Although she had settled some 12 feet by the head, the cruiser headed for Tulagi, her damaged prop, a disrupted communications system and torn pieces of the hull projecting forward making the ship almost unmanageable. Only the forward bulkheads — and her damage control measures — kept her from sinking. Aided by a destroyer, *New Orleans* finally reached Tulagi, where coconut trees were once more put to work: logs were used to shore up bulkheads, limbs and leaves for camouflage from Jap planes flying overhead.

Twelve days later the vessel was ready for the 1700-mile trip to Australia and fitting of a temporary



FAST DC WORK kept *USS Floyd B. Parks* (DD 884) floating. *Below:* Damage control teams of *USS Valcour* (AVP 55) saved the stricken Italian *Argea Prima*.

Masters of Fire, Flood, Disaster

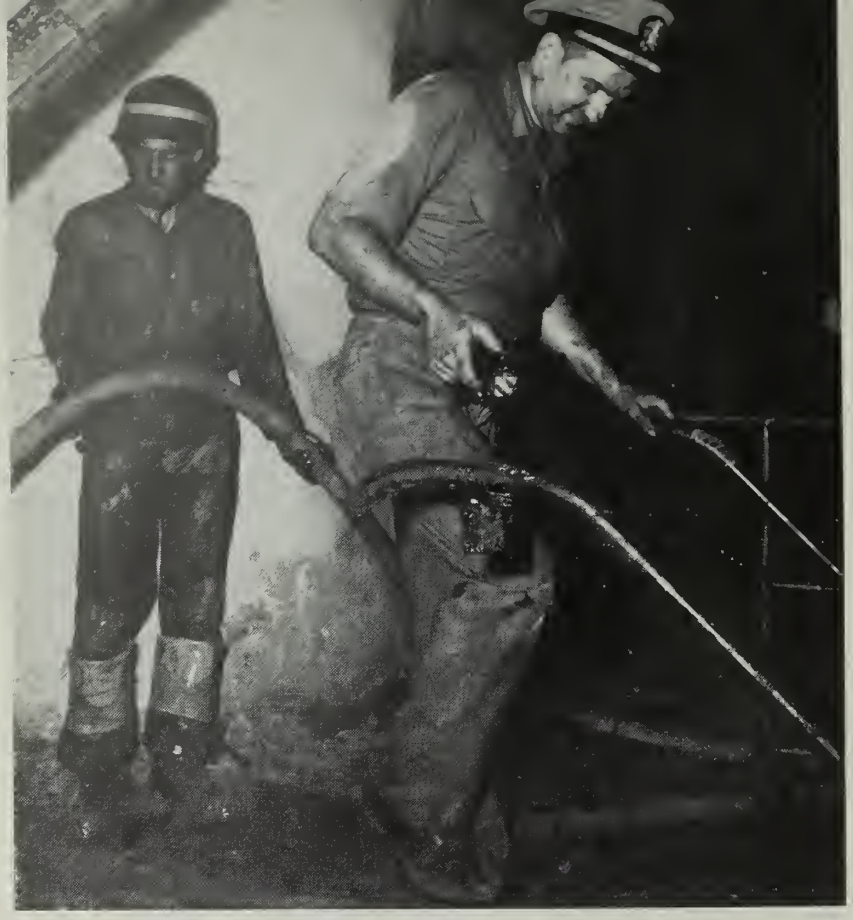
bow before undertaking the long cruise to Puget Sound and more permanent repairs.

Naval historian Samuel Eliot Morison has pointed out that "Damage control — the ability to quench fire, halt flooding and patch machinery —an orphan trade in the prewar Navy, so matured that after 1943 only one fast carrier *(Princeton)* was lost, although *Franklin* and *Bunker Hill* suffered grievous damage."

The story of CAs 32 and 36 gives you an idea of what helped mature this "orphan trade," and the lessons learned during the war led directly to establishment of the damage controlman rating in 1948, when the entire enlisted rating structure was revised. The new DC rating combined a number of skills which were already familiar to Navymen—carpentry, painting, fire-fighting and welding, to name a few. And, as the name suggests, DCs were primarily responsible for practical application of the science of repair; hence any skill relating to repair was also of interest to the DC.

Strikers in the new rating soon learned such basic damage control objectives as:

- Take all practicable measures before damage occurs, including maintenance of watertight and fume-tight integrity, reserve buoyancy and stability, the removal of fire hazards,



HOT STUFF — Engineer, LTJG A. J. Berardo, of *Valcour* inspects damage. *Below:* DC men repair shrapnel-scarred bulkhead of *USS Collett* (DD 730).

and upkeep and distribution of emergency equipment.

• Minimize and localize damage, when it does occur, by such measures as control of flooding, preservation of stability and buoyancy, fire-fighting and first aid treatment for injured personnel.

• Accomplish emergency repairs and restoration of damaged vital systems as quickly as possible after damage occurs, by such measures as supplying casualty power, regaining a safe margin of stability and buoyancy, replacing essential structure, and manning essential equipment. (The restoration of vital systems requires a good knowledge of the fire main and drainage systems, compressed air system and a maze of power lines.)

While these sound pretty defensive in character, damage control is offensive in the sense that the ship's ability to inflict punishment upon or destroy the enemy is affected by how well damage is controlled.

To keep a Navy ship afloat despite collision, fire, or grave battle damage, and to keep this damage as small as possible, a number of precautions have been taken by BuShips long before a crew boards her. The design of the ship, in so far as possible, incorporates the strength, stability and watertight integrity necessary to resist damage and possible sinking. Inflammable materials — woods, fabrics, paints, linoleum, etc., — have either been removed, replaced by fire-resisting materials, or safeguarded in some other fashion.

Once she goes into operation, damage controlmen do the day-to-day jobs required to keep your ship's safety at a peak. A 24-hour DC watch is maintained at all times, as a combined security and fire watch. The men on this watch patrol the ship looking for fire, fire hazards, leaking valves or piping. Other routine duties include checking and reporting on hull conditions such as preservation and watertight integrity. The fire main, drainage systems, ventilation and fresh-water systems, along with their valves and closures are tested regularly. Damage control equipment such as "handy billy" pumps, electric submersible pumps, rescue breathing apparatus and shallow-water diving equipment are also tested.

A savvy DC knows your ship from

VALCOUR MEN spray down hot decks of Italian tanker. *Below:* Training group enters smoke-filled compartment.

top to bottom—and he knows that all lives aboard may depend upon how well he does his job. Inner bottoms, feed and fuel tanks, fresh water tanks, and cofferdams hold no secrets from him; he knows how to operate pumping equipment and what's on compartment check-off lists. He's familiar with fire-fighting and fire-fighting gear. If your ship has a carpenter shop, he will maintain the ship's boats and may also knock out boxes and crates, bulletin boards or blackboards—but his main job is still the protection of your ship and her crew.

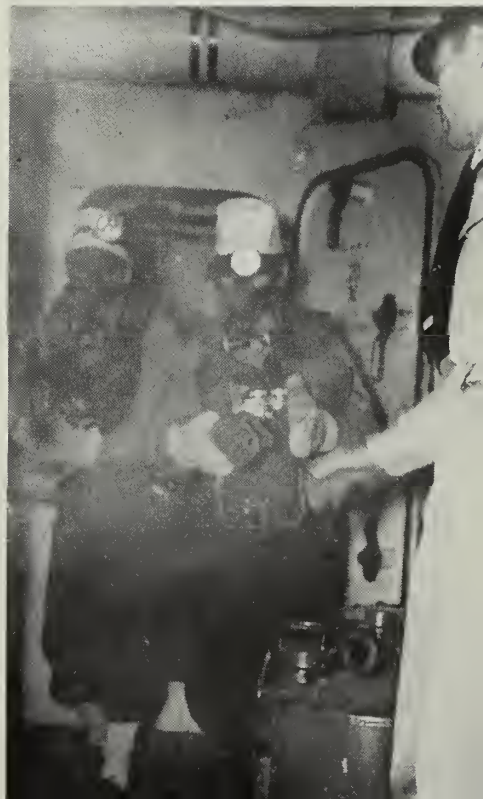
Every man who's been to sea long enough to participate in a series of general drills knows, however, that there's a great deal more to damage control than a few watertight doors and DCs to check valves and openings which must be closed when the alarm sounds. Within the battle organization of every combatant ship there is a damage control organization which is a temporary set-up and includes personnel in many rates who are assigned to help DCs in performing the jobs made necessary by battle (or accidental) damage.

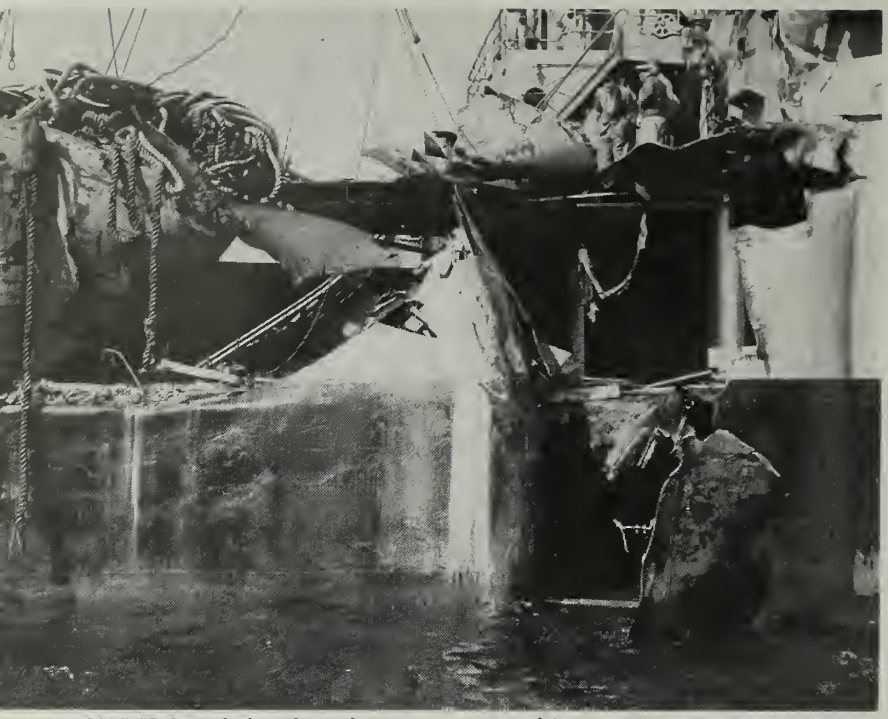
Before examining that set-up, however, let's take a gander at your shipboard Watch, Quarter and Station Bill as outlined in the Ship's Organization Book. Here, in addition to bills for cleaning, maintenance and battle stations, you will find others for repair, collision, fire, abandoning ship, salvage, jettisoning, gas defense and radiological safety. Your division's Watch, Quarter & Station Bill is made up in accordance with this book, and lists your billet number and where you should report when any of the above bills is put into effect—even if it's only a drill. For some of these you most likely will report to your regular mustering station, but you will most certainly have a battle station, an abandon-ship station, and a station to report to in case of fire or collision.

Hand in glove with your emergency bills is your shipboard damage control organization, headed by a Damage Control Assistant to the Engineering Officer. The DC assistant insures that personnel are available to fill the billets in the various repair parties, and to man Damage Control Central (the "mastermind" headquarters of the DC organization).

DC Central, located in a well protected spot, collects and compares reports from various repair parties in order to determine the condition of the ship and what action should be taken to correct any potentially dangerous condition. Reports from the different repair parties are carefully checked and immediate action taken to isolate damaged systems and repair them in the most logical manner.

Among the personnel manning DC Central on larger ships will be a stability control officer; a casualty board operator; a damage analyst; fuel oil, electrical and ordnance representatives; and several phone talkers who are trained to receive, de-





KNOWLEDGE of ship from bow to stern enables DC men to meet emergencies. Despite sea pouring through hull MSTS cargo ship makes port.

liver and record messages.

Arrangements are also made for other repair stations (in designated order) to take charge of damage control activities if the central station is destroyed or knocked out of communication with other stations.

Your larger ships (cruisers and battleships) will have at least the following six repair parties:

- Repair 1 (deck repair party), usually with the first lieutenant or ship's boatswain in charge. This party is made up of deck petty officers and nonrated men, storekeepers, radiomen, electrician's mates, hospital corpsmen and perhaps engineering petty officers.
- Repair 2 (forward repair party) also has an officer in charge, and is composed of artificers (both deck and engineer), electrician's mates, storekeepers, corpsmen and nonrated men.
- Repair 3 (after repair party), which is similar in makeup to Repair 2.
- Repair 4 (amidships repair party), also similar to Repair 2.
- Repair 5 (main propulsion repair party), which includes a broad cross section of engineering ratings qualified in repair of electrical machinery and equipment, and qualified reliefs for various engineering watch stations.
- Repair 6 (ordnance repair party), composed of gunner's mates, fire controlmen, and electrician's mates, usually under command of the ship's gunner. Usually, too, this party is divided into forward and after sub-groups.

Carriers will have two additional repair parties (gasoline repair party and flight deck repair party), while smaller Navy ships may do with just two (designated *forward* and *after* repair parties).

Examples are plentiful of the effectiveness of this set-up and of the development of those damage control procedures which were embryonic at the beginning of World War II. One outstanding example of topnotch damage control organization and effectiveness is the case of USS *Ernest G. Small* (DDR 838).

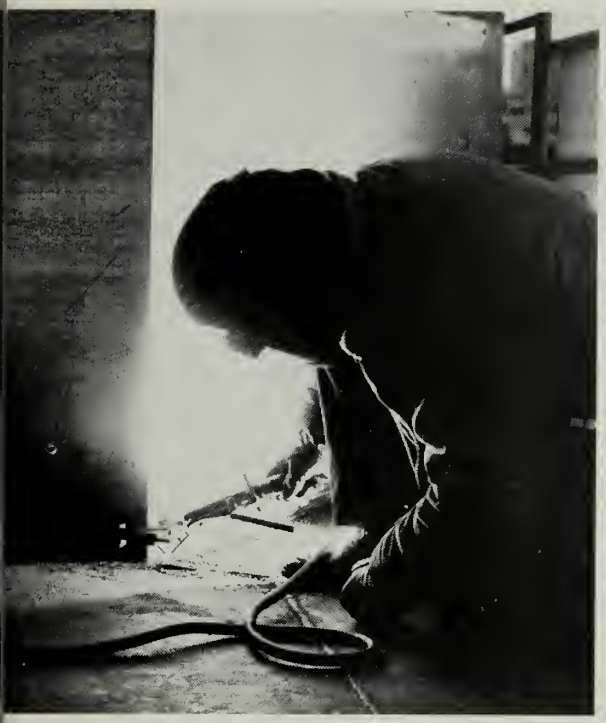
Small, during the Korean fracas, struck a submerged mine while leaving the harbor of Hungnam after a day of bombardment. The resulting blast ripped a 50-foot deck-to-keel hole in the destroyer's port side, abreast of number two mount. Luckily *Small's* crewmen were still at general quarters, her repair parties ready for anything. Damage control began immediately, with the isolation of power and steam lines, the quick action localizing the damage as much as possible.

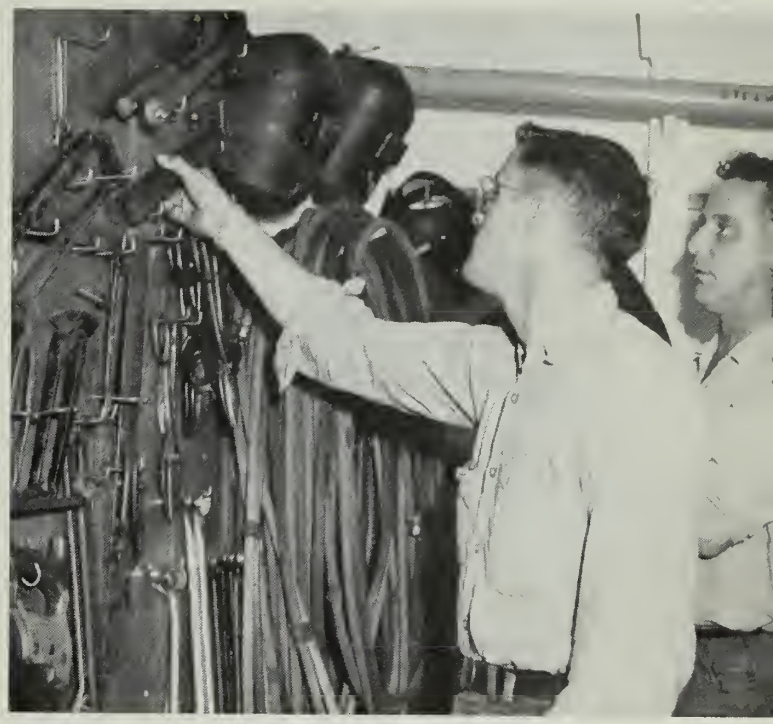
As the destroyer crept toward port, sea action on the weakened forward section of the ship caused it to work loose and go floating off on its own. Her damage control measures had been such, however, that loss of the bow section did not endanger the remainder of the ship.

The fleet tug USS *Hitchiti* (ATF 103) eventually towed the DDR into Kure, where a Japanese firm outfitted *Small* with a stub bow for the long cruise back to Long Beach. At Terminal Island the bow from an "identical twin" of *Small's*—the partially-completed USS *Seymour D. Owens* (DD 767)—replaced the stubby temporary one.

Or take USS *Bennington* (CVA 20): She was en route from Norfolk, Va., to Quonset Point, R. I., conducting air operations when a series

MANY SKILLS are required of DC teams. Here crewmen of *USS Collett* repair bulkhead damaged by enemy gun fire during landings at Inchon, Korea.





WIELDING WELDING equipment is one of DC's duties. *Rt:* DC issue-room of *USS Bryce Canyon* (AD 36) is inspected.

of violent explosions spread flames, flash fires, intense heat and dense smoke through the forward section of the ship. Crewmen immediately put to use the knowledge gained in dozens of general drill sessions to effect emergency damage control measures and rescue shipmates.

From the first explosion until the last tongue of flame, the crew of the stricken carrier, damage controlmen, seamen, airmen, yeomen — all rates, all ratings — fought deadly fumes, flames and the red hot twisted steel to bring the fires under control and prevent further damage.

Exaxmples of effective — but individual—damage control can be found long before World War II and the days of a tight DC organization, however. Back in 1862 Seaman Thomas Barton, while serving on board USS *Hunchback*, received the Medal of Honor for his courage and prompt action in dousing an ignited shell, with cartridge attached, which had fallen out of a howitzer onto the wooden deck.

Quartermaster James Brown received the same honor in 1864 for an intriguing bit of damage control: Brown was serving in USS *Albatross* during action against Fort De Russy in the Red River area on 4 May 1863. After the steering wheel and wheel ropes had been shot away by Confederate fire, Brown—disregarding close musketry fire from the shore—climbed up on the gun platform of the quarterdeck and rendered invaluable assistance by his expert management of the relieving tackles in extricating the vessel from a perilous position. (Relieving tackles are tackles hooked to the tiller to steer the ship in case of accident to wheel or wheel ropes.)

Back in those days the control of damage was very much an all hands job, and all hands took pride in knowing what to do in an emergency to save their buddies and their ship. Today, even with efficient repair parties and a closely organized damage control system, it is still an all hands evolution. At the same time it is a phase of your military responsibility which becomes increasingly important as your Navy moves into an age of nuclear power.

—Barney Baugh, JO1, USN.

A CHIEF DAMAGE controlman dons shallow-water diving gear to inspect damage. *Below: USS Franklin* of WW II was saved in spite of heavy damage.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **OPEN RATES**—The Chief of Naval Personnel has promulgated directives listing a number of rates which are "open" for the following purposes:

1. Enlistment or reenlistment of Naval Reserve personnel on active duty who desire to transfer to the Regular Navy in their present pay grade;
2. Acceptance for active duty of volunteers from the Naval Reserve and Naval Fleet Reserve; and
3. Reenlistment in the grade they held at time of discharge for personnel who have been discharged more than three months but less than one year.

The following rates are open for personnel in the three categories listed above: QM1, 2, 3; RDC, 1, 2, 3; SO1, 2, 3; TM2, 3; GM2, 3; GSC, 1, 2, 3; FT1, 2, 3; MN2, 3; ET1, 2, 3; IM2, 3; OM2, 3; TE1, 2, 3; RMC, 1, 2, 3; CT1, 2, 3; YN2, 3; PN2, 3; MA2, 3; SK2, 3; DK2, 3; CS3; SH3; JO2, 3; LI3; DMC, 1, 2, 3; MU1, 2, 3; MM1, 2, 3; EN2, 3; MR1, 2, 3; BT1, 2, 3; EM1, 2, 3; IC1, 2, 3; ME2, 3; FP2, 3; DC3; PM2, 3; ML3; SV1, 2, 3; CE1, 2, 3; CD3; CM3; BU1, 2, 3; SW1, 2, 3; UT1, 2, 3; AD2, 3; AT1, 2, 3; AO2, 3; AQC, 1, 2, 3; GF1, 2, 3; AC1, 2, 3; AEC, 1, 2, 3; AM2, 3; PR2, 3; AG1, 2, 3; TD2, 3; AK2, 3; PH2, 3; HM3; DT2, 3.

In addition, the following rates are open for men in Category Two: SN, SA, SR; FN, FA, FR; CN, CP, CR; AN, AA, AR; HN, HA, HR; DN, DA, DR.

Other information on these programs may be found in BuPers Notice 1130 of 5 Jun 1956, BuPers Notice of 17 May 1956 and Recruiting Service Note 140-56 of 14 May 1956.

• **RATING REVISIONS**—One general service rating (boilermaker) is being reestablished and three more changes in emergency service ratings are in the works.

In the emergency service category, Draftsman L (Lithographic) is being disestablished. Newly established in the emergency category are Fire Control Technician L (Integrated Systems) and Fire Control Technician E (Electromechanical).

The new boilermaker rating will be limited to pay grades E-6 and E-7. Changes of rating to boilermaker can not be made until specific instructions have been promulgated.

• **SS DESIGNATOR**—All enlisted personnel qualified in submarines are reminded to use the SS designator after their rate.

The SS designator should be used at all times in official correspondence, orders, availablity reports, requests and by all means in the individual's service record.

Qualified submariners are reminded that if they do not carry the SS designator they will not be assigned to submarine duty.

If for some reason your SS designator has been dropped unofficially, you should check with your present command to have it restored. If your command cannot show that you are qualified in submarines, then you should submit an official letter via your commanding officer to the Chief of Naval Personnel (Attn: Pers B-2131) requesting that your duplicate service record be examined to determine your eligibility and have your SS designator restored.

Personnel who have been disqualified from further submarine duty for any reason other than physical are not eligible for restoration of their SS designator.

Those who were physically disqualified and have since requalified are eligible to have their submarine designator restored and can be returned to submarine duty.

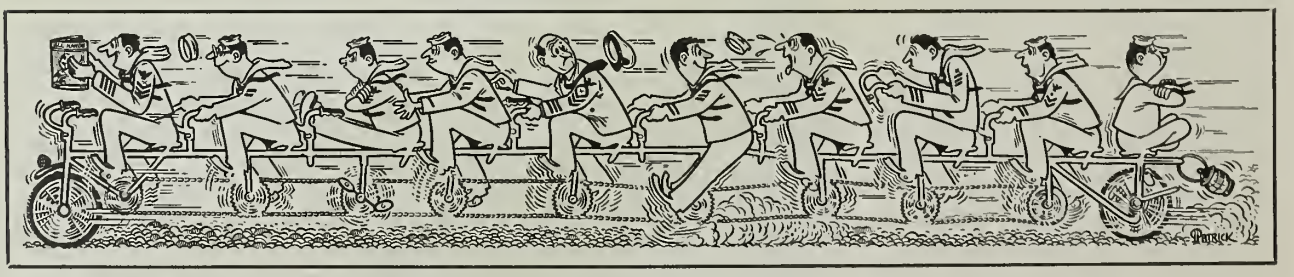
Detailed information concerning restoration of SS designators can be found in BuPers Inst. 1540.2B and Article C-7404, *BuPers Manual.*

• **VOLUNTEER FOR GS RATING**—An attractive and rapid path of advancement is in store for career second and third class petty officers in 22 different ratings who apply for conversion to the guided missileman rating.

The increasing emphasis upon the guided missile aspects of modern warfare has caused an extreme demand for highly skilled enlisted men within the Navy. BuPers Inst. 1440.16A asks for volunteers for a new Navy program designed to meet these growing needs and at the same time offers outstanding opportunities to the men who enter the new and expanding guided missile field.

Career enlisted personnel of pay grades E-4 and E-5 of the following ratings, who have a combined ARI-MECH score of 110 are eligible to apply for the GS conversion program: BM, GM, IM, OM, YN, PN, MA, DK, CS, SH, LI, EN, ME, EP, DC, PM, ML, SV, CD, CM, SW and SD. Applicants are particularly desired from BM, GM, LI, ME, EP, DC, CM and SD.

Applicants must have a minimum of three years' and a maximum of 12 years' active duty with five years'



REMEMBER THERE'S A LONG CHAIN of readers behind you — PASS THIS COPY ON to nine others.

obligated service. Persons having less than five years' obligated service must agree to extend their enlistment for a period of one, two, three or four years as necessary. In cases where the extension or reextension exceeds four years in any one enlistment, the Chief of Naval Personnel will, upon request, authorize discharge for the purpose of an immediate six-year reenlistment.

Personnel selected for the GS conversion training will be assigned to a 20-week course in basic electronics at the U.S. Naval Schools Command, Treasure Island, San Francisco, Calif., and then to a 12-week missile phase at either Dam Neck, Va., Pomona, Calif., or Mishiwaka, Ind.

Accepted applicants who cannot be assigned to school immediately, will be placed on a waiting list and assigned at a later date in the same order as their applications were received.

Upon successful completion of both phases of the conversion training, the rating of graduates will be immediately changed to GS in the same pay grade.

• **PER DIEM FOR MOBILE UNITS**—Everyone required to be absent from his permanent duty station in connection with official duties will, in the future, be issued temporary additional duty orders.

This directive was handed down by the Secretary of the Navy so that all personnel will be entitled to appropriate per diem allowances provided in *Joint Travel Regulations* whether or not quarters or subsistence are available at the point of their TAD.

SecNav Inst. 7220.19 states that members of mobile units (including aviation, mobile construction battalions, mobile ship repair units, etc., which are part of the operating forces) performing TAD away from their permanent duty station shall be issued TAD orders and are entitled to per diem allowances for travel and time served at the TAD station. Also, when an entire mobile unit is ordered away from its permanent station, all personnel deployed shall be issued TAD orders and shall be entitled to payment of per diem allowances.

SecNav Inst. 7220.19 further states that members currently deployed without TAD orders will be issued TAD orders upon receipt of the instruction and be paid per diem allowance from the date the written TAD orders are actually issued, but confirming TAD orders may not be issued to members who have completed a period of TAD for which the required written orders were not issued.

• **TRAILER ALLOWANCE SURVEY**—A survey is now underway to determine the actual expenses being paid by Navymen in moving house trailers between duty stations within the continental United States. The main purpose of the survey is to determine whether the allowance now prescribed for trailers towed by private auto is valid; however, the results of the study may also provide the basis for an adjustment of the maximum allowance.

DD Form 1139 (House Trailer Transporation Cost Survey) will be used for the study and is now available at district publication and printing offices. One copy of the form will be furnished to each house trailer owner before commencement of travel under orders directing him to report to a new duty station. The Navyman will deliver the completed original form to his disbursing officer, along with his claim for reimbursement of the money expended in moving his house trailer between duty stations.

The disbursing officer will review the form for completeness, fill in the portion marked for his signature, and forward it to the Chief of Naval Personnel (Pers E3).

The survey will end 31 Dec 1956.

• **SHIPMENT OF AUTOS**—Private automobiles owned by service personnel may now be transported to or from overseas stations by privately-owned vessels sailing under the American flag, provided transportation of such vehicles at government expense is otherwise authorized by law.

Pending revision of paragraphs 29200-1A, B and C of the *BUSandA Manual* and Marine Corps Order 4050.1, either privately-owned or government-owned vessels may be utilized for transportation of autos of personnel for whom such transportation heretofore has been authorized only on government vessels.

The basis for this change is Public Law 538. A1nav 17 of 31 May 1956 announced upcoming changes to the regulatory publications.

QUIZ AWEIGH

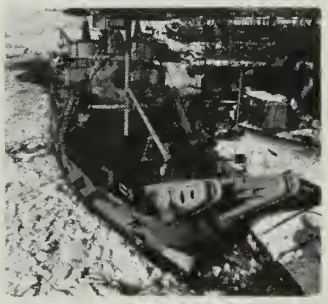
Take ten, a cup of coffee and then see if you can take this month's quiz in six easy strokes. If you know your Navy, this will be easy sailing. On the other hand, if you've neglected your nautical knowledge, you might find yourself at sea.

1. This ship is the USS *Abnaki*. She is (a) submarine rescue vessel (b) coastal minesweeper (c) fleet ocean tug.

2. Ships of this type have an average length of (a) 205 feet (b) 141 feet (c) 311 feet.

3. These men are indulging in an ancient Navy custom called (a) swabbing (b) holystoning (c) caulking.

4. The primary purpose of this activity is to (a) fill cracks in the deck (b) clean the deck (c) keep them in good physical condition.



5. It's not often that you see a ship of this type. It is a net-laying ship and carries the designation of (a) NA (b) NL (c) AN.

6. Ships of this type are named after monitors formerly on the Navy list and (a) volcanoes (b) mountains (c) trees.

Answers are on page 49.

BRUSH-OFF *(above)* and decontamination bath *(below)* protected the divers.

A Hot Job on the Ocean's Floor

A BIG HANG-OVER from World War II—one that was giving seven Navymen quite a headache — has finally been relieved. These sailors, all explosive ordnance disposal experts, had the grandaddy of all disposal jobs to work on since fall of 1955.

In a daring underwater operation in Tokyo Bay they removed 161 lethal liquid mustard gas shells that were dropped into 30 feet of water some ten years ago by the Japanese.

Moving with caution on the tricky bottom of the Bay, 55 yards offshore from the Naval Station, the ordnance disposaleers slid these deadly shells into new steel casings. This was necessary to prevent human contact with the searing liquid that had seeped through the shells when they were raised to a barge for final disposal.

Although the new steel covers minimized the danger of burns from shell seepage when they were lifted to the surface, raising them to the barge was as dangerous as the underwater phase of the operation.

The shells were raised with a single whip rig powered by a winch from a net gate vessel. A crane barge was tried first but it proved difficult to hold in position above the shells.

LTJG Larry Paxson, USNR, officer in charge of the detail, explained it this way.

"There was always that one-in-a-million chance that one of those bombs might explode. Raising them provided a greater chance for detonation—the greatest chance of the entire operation."

The surfacing operation went like this. After the diver hooked an encased shell to the winch cable it was pulled aboard the barge by Chief Petty Officers John L. Richards, USN, and Clarence T. Smith, USN. They washed it down with a neutralizing solution of calcium hypochlorite. The shells were then gently stacked in the barge. This solution was also used to wash the divers and their equipment each time they came up.

The chiefs, who also pulled their share of diving work, wore long rubber gloves, goggles and heavy rubber suits to prevent possibility of burns from further leakage caused during stacking or by internal expansion as a result of decreased pressure after the shells were removed from the bottom.

When the shells had all been loaded into the barge, the lethal load was towed far out to sea by USS *Takelma* (ATF 113) and dumped into more than 4,000 fathoms of water.

The story of the shells goes back to the end of World War II when the Japanese mistakenly dumped them into shallow water close to shore.

They were discovered about eight years later by local salvage crews looking for scrap iron. They informed the Japanese Maritime Self Defense Board which in turn hired salvage crews in an attempt to bring up the shells. After several Japanese had received burns, the U.S. Navy was asked to help.

The Japanese gathered the shells into one centralized spot and the Explosive Ordnance Disposal Team from U.S. Naval Ordnance Facility at Yokosuka began the job of getting them out of the water and loaded onto a barge. Handling the shells with Paxson, Richards, and Smith were Paul A. Wells MN1, USN, William W. Chambers, GM2, USN, James D. Connors, TM2, USN, and Alfred H. Spinks, MN1, USN.

"We kept gas masks within reach

at all times," the officer-in-charge of the disposal crew said. "The gas inside the shells was in liquid form but if one had exploded it would have splattered the stuff 50 to 100 yards in all directions. The fumes in such a case would have damaged a man's lungs in short order.

"The threat of external burns was much greater as the water inside the new cases still contained some of the gas that could cause damage. We knew the escaped mustard gas was there. We saw it on the diving suits throughout the entire operation. It was a yellowish brown substance that was sometimes hard to spot."

When the ordnance specialist was asked if the contents were still potent after all this time under the salt water of Tokyo Bay, his reply was immediate and to the point.

"You bet it is. We found out the hard way!"

Back in May of 1954 Paxson and his crew were raising some shells from another location. One shell accidently brushed his shirt front and trouser leg. The result was four painful weeks in the hospital.

One of the bad things about a mustard gas burn is that you don't know you've had it until several hours later. Red spots begin to show, and after that come the blisters. One brush with the gas was enough. Extreme caution paid off. No more injuries occurred.

In completing this underwater disposal job, the seven Navymen freed the harbor of a danger that had been lurking beneath the surface for a decade. The liquefied gas, if freed from its rusting shell cases, could have drifted onto beaches or come in contact with fishing lines and nets, anchor chains and anchors. It could even have contaminated a ship's distilling plant. Eventual decomposition of the shells or one of the area's frequent earth tremors would have freed about two gallons of the searing liquid from each shell.

JAPANESE MUSTARD GAS shell and case are examined by (l to rt) Chief Richards, Lt. Paxson, and Chief Smith. *Below:* Shell is carefully lifted to barge.

DIVERS ON DECK of *YNG 11* prepare for task at bottom of bay. One diver locates and attaches shell to line while second directs its raising to surface.

TEAM TRAINING helps teach Reservists night navigation. *Right:* Reservist checks watch bill at training center.

Ship Team Training Ashore and Afloat

"CONN? THIS IS COMBAT. Skunk one eight zero, one eight thousand."

"This is Conn. Aye, aye. Track and report."

Your country is in a state of war with "Orange Power." The Navy is currently blockading the Orange coast. Your ship, DE 310—along with her sister ship, DE 305—is on an offshore patrol of one of Orange's harbors.

Latest intelligence reports indicate that Orange will try to run two tankers, escorted by two DEs, into port through the blockade.

The officer in tactical command, ComBlockadeGroup 31, is flying his flag in your ship. He has the Group formed in a column steaming on course 090°T at a speed of 15 knots.

Your ship has just gone to General Quarters on the strength of intercepted radio transmissions indicating that an Orange force is in the immediate vicinity.

Ten minutes after going to GQ, surface search radar picks up a contact bearing 180, range 18,000 yards.

Your ship changes course to 180 and increases speed to 20 knots. The OTC signals to prepare for action and to open fire with guns when guns bear.

Fifteen minutes after going to GQ, CIC evaluates the contact as enemy. Eighteen minutes after going to GQ, your ship is straddled by a salvo of five-inch projectiles. Two minutes later your 40mm gun mount reports that it has been hit by a projectile. All electrical power is lost; the first loader has his right arm severed by shrapnel.

Almost simultaneously, the patrol from Repair One discovers a fire in the forward crew's berthing space. There is considerable smoke and the smell of burning rags.

Two minutes later the forward engineroom discovers a ruptured fire main. Radio Central reports a fire in the TBL transmitter; a radioman has received electrical shock and burns. The steersman reports loss of steering control.

That's the battle plan for a Naval Reserve "team training" drill. There's no real enemy, no real gunfire, no real casualties. The "ship" is, in reality, a Naval Reserve Training Center—many miles from any ocean.

Every old salt knows the value of team training. For many ratings, team training is a prerequisite for effective evaluation of individual rate training—as the individual normally performs many of his duties as part of a team in the ship's organization. Every old salt also knows that, in time of battle, team training really pays off.

Team training is being given more and more emphasis in the Naval Reserve program. It is designed to provide Reservists in Surface Divisions with the "out-of-rating" knowledge and skill required of all personnel on active duty.

In addition to specialized training in the various ratings, Reservists are now learning the many different stations of a typical Watch, Quarter and Station Bill. They are going through similar drills and battle problems that active duty personnel undergo.

The team training concept for Naval Reservists is not limited solely to general drill or battle problem type exercises involving all hands or functional team practical drills conducted within certain rating groups.

Team training also includes tak-

RESERVE TRAINEE is squared away on testing engine. *Right:* DC team shores bulkhead. *Below:* Signaling is practiced.

ing part in any evolution which tends to promote team participation and team competition, such as shoring, pipe repair, gun control and gun casualty exercises, infantry drill, small-arms firing, small-boat handling, signal drills, marlinespike seamanship and the like.

The general pattern for team training consists of team drills by functional groups, such as gunners, CIC, damage control or bridge control units, with an all hands drill monthly or bi-monthly, tying all groups together. Short critiques, made by key personnel, generally follow these exercises.

Where appropriate, Reserve divisions are organized under shipboard lines rather than under a classroom organization. In some cases — as in the case of the mock DE above — a specific type ship is simulated and personnel are assigned to underway steaming watches.

In many Reserve Training Centers, the physical arrangement has been modified by designating spaces within the centers corresponding to those on board ship—such as damage control center, pilot house, radio shack, CIC, bridge and the like. These spaces are tied in with an interior communications system using standard shipboard circuit designa-

tions and consisting of from five to 10 stations.

Where actual gear isn't available, team training aids are being developed and utilized. Some of these include damage control mockup bulkhead units, oil firefighting units and small-arms ranges. To heighten the sense of reality in some training centers, all doors have been marked according to damage control classification used aboard ship.

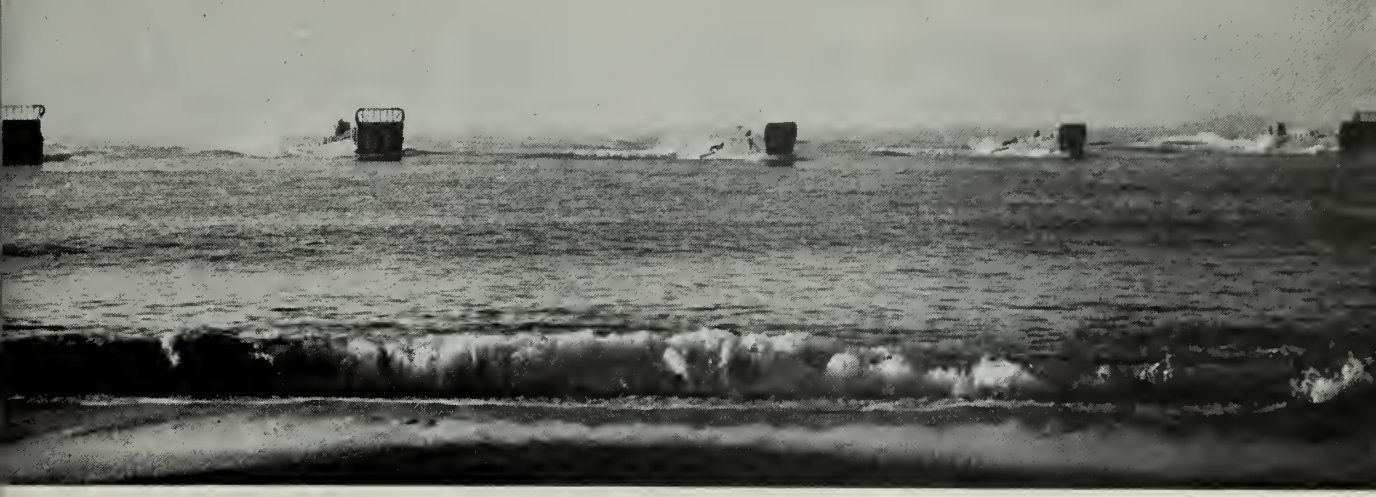
Whenever available, of course, Reserve Training Ships are used for team training drills.

Although the team training program for Reservists is comparatively new, it has resulted in widespread enthusiasm among Reservists and Regulars alike.

Aside from the invaluable training and experience inherent in the program, team training has given officers and petty officers more opportunities to develop their leadership abilities and utilize their know-how.

But perhaps the most important "by-product" — if it may be called such — of team training has been the high morale and *esprit de corps* of Reservists who have taken part.

REPAIR TEAM patches pipe during drill simulating battle conditions at sea while team *(below)* fires loading machines.



Amphib Troubleshooters

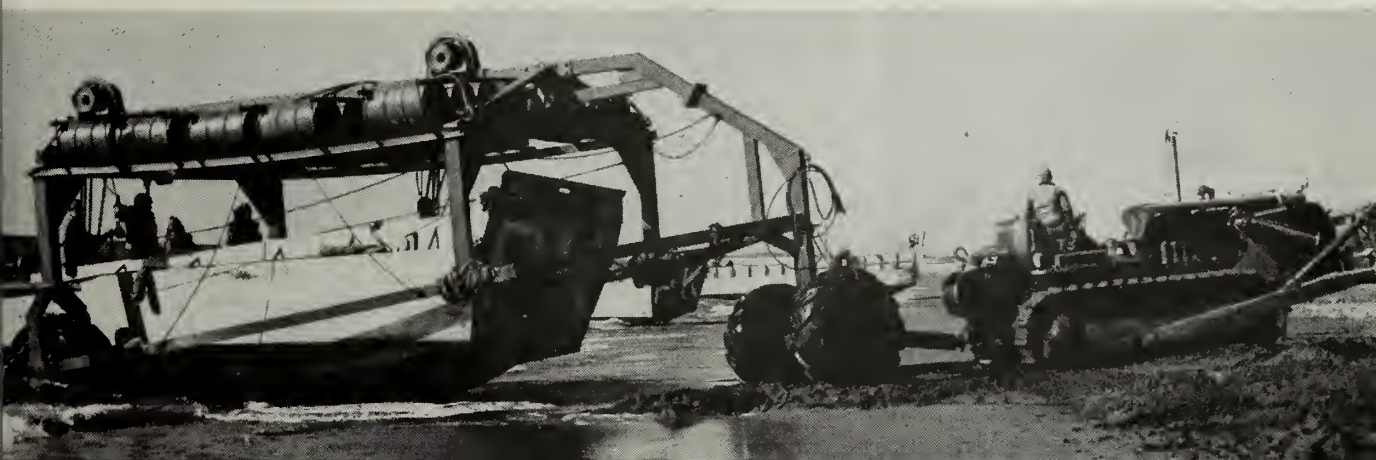
LANDING CRAFT take a beating in amphibious exercises. Grinding up on the beach, retracting, then going back to the mother ship for another cargo take its toll in damage.

These photos show how men of Beach Master Group One perform salvage operations when one of the little craft gets into trouble.

Three major hazards threaten the small landing boat—actual damage to the craft, broaching, and a jammed ramp. If the boat's hull is damaged, the "jeheemy," is used. This is a frame-like contraption mounted on over-sized rubber tires and pulled by a tractor. It lifts the boat clear of the water and pulls her up on the beach where repairs can be made. Then it backs the boat into the water again where she's set afloat.

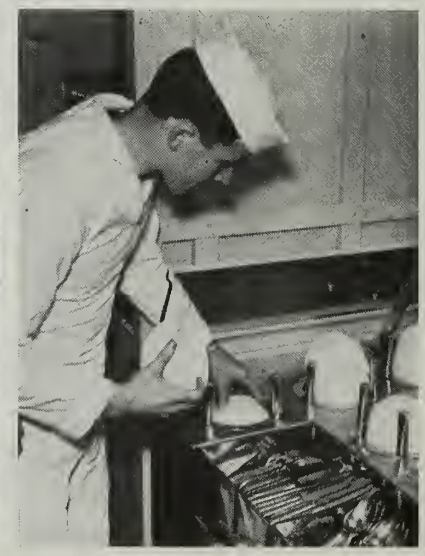
"Amphibious ducks" solve the jammed ramp problem. Cables are attached to the ramp lifts and a powerful winch in the back of the duck hoists the boat's heavy front door. Ducks are also used for getting broached boats off the sand and back into navigable water again. With its blunt fender-covered nose, the duck "wheels" into position and shoves the landing craft back into deeper water.

Top: Navy's landing craft churn up shallow water as they head toward the beach. *Top right:* Amphibious duck gets ready to pull open a jammed ramp. *Lower right:* Muscle power is used to line up landing craft so jeheemy and duck can do their work. *Bottom:* Jeheemy moves in and straddles damaged boat preparatory to hauling it out of the water for repairs.



YUM YUM—Member of Navy Field Food Service Team shows ship's baker new techniques. *Right:* Efficient working spaces help in preparation of food.

TEAMS step up mess appeal. *Below Rt:* New rack is tried on *USS Forrest Sherman* (DD 931). *Left:* Crew of *USS Calcaterra* (DER 390) enjoys meal at sea.



Better Meal

OPERATING ON FOUR FRONTS in the continental United States and from selected points overseas, Navy Field Food Service Teams are working to help commissarymen aboard ships and shore stations to achieve high standards in food service.

These teams, consisting of veteran CPOs and officers with a background in commissary work do not hold inspections of general messes. The job of the team members is to point out short cuts, ways of making meals more appealing and, in general, showing the commissarymen who haven't had special schooling how to keep the Navy eating the best.

Every commanding officer knows the part good food plays in keeping the morale of personnel at top level, and he wants to have his general mess just a little better than that on other ships in the division. If he's smart he may call on the services of the team for help. The team visits activities only upon the invitation of the commanding officer.

When a training period is scheduled, the Navy Subsistence Office, Washington, D.C., forwards a letter to the commanding officer of the activity telling him of the dates of the visit and the purpose of the visit in general—in short, the letter tells the CO what the Field Food Service Team will try to accomplish for his general mess. The team does not deal with the private messes.

When the team arrives aboard ship, the Officer-in-Charge of the team meets the commanding officer to let him know the team is ready for action. At this time the CO is told he is invited to "sit in" on a critique which will be held on the last of the team's visit to the activity. This gives him a firsthand report on the team's work aboard his command.

The first two days may be spent in determining how the general mess operates at the particular command—it's also a time in which the team members and the command's commissarymen become acquainted. The commissarymen are encouraged to ask questions about items on the menu and problems with which they have had trouble. The team encourages them to put these items on the menu so that all hands can work out their difficulties. In this way, members of the team demonstrate their

or Your Ship

suggestions by working side-by-side with the ships cooks and bakers. Members of the team hold conferences daily to determine which phases of the mess are good and which phases could be improved.

After this observation period, the team decides what on-the-job training might be necessary on that particular ship or station.

Then follows a combination of on-the-job instruction and a theory training course. The commissaryman is able to step from classroom work to the very real problem of applying the theory under the fire of a 365-day working schedule.

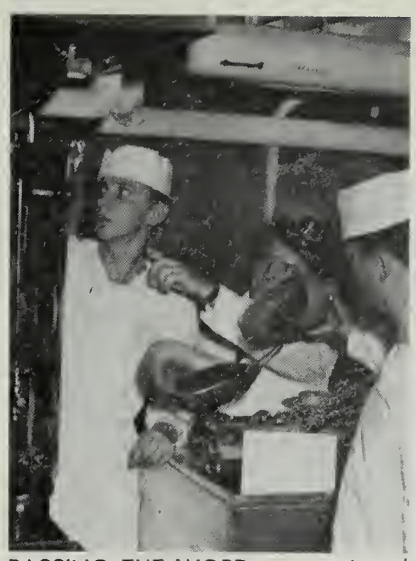
During the on-the-job training the team chiefs work at the elbows of the ship's commissarymen. The idea is to implant in the minds of the ship's commissarymen a fresh view of the basic principle involved in menu planning, baking, moist and dry meat cooking and frying, vegetable cookery, salads, soups, desserts and garnishing. The team advocates lavish use of the "salad bar" which in the past few years has become a big item.

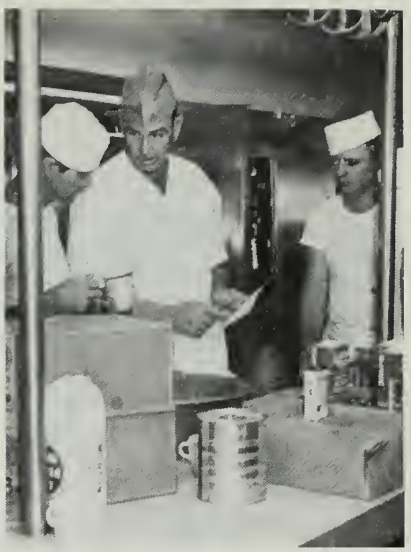
The ship's commissarymen usually come forth with some pet idea they have long wanted to try. They are given a chance to put it into practice. If it's good, the team may pass the word along to the next ship they visit.

On the last day of the team's visit, there is a "pre-departure" conference. All hands concerned with the course meet to discuss the results of the team's visit. This usually lasts from an hour to an hour and a half but often the talk gets to be so interesting that unless the discussion leader watches the clock, it may go on for several hours. During the conference, a Memorandum Analysis—the written conclusions of the Field Food Service Team—is discussed with emphasis on the fact that it is not an inspection report, or a recital of anyone's shortcomings. At this time the ship's cooks and bakers have an opportunity to comment on the observations and suggestions submitted by the team.

After the visit the officer in charge of the team submits for comment a report to the Navy Subsistence Office via the commanding officer of the activity concerned.

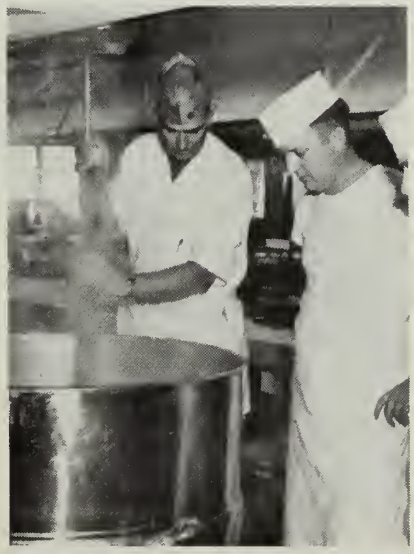
—Lee Roach, JO1, USN





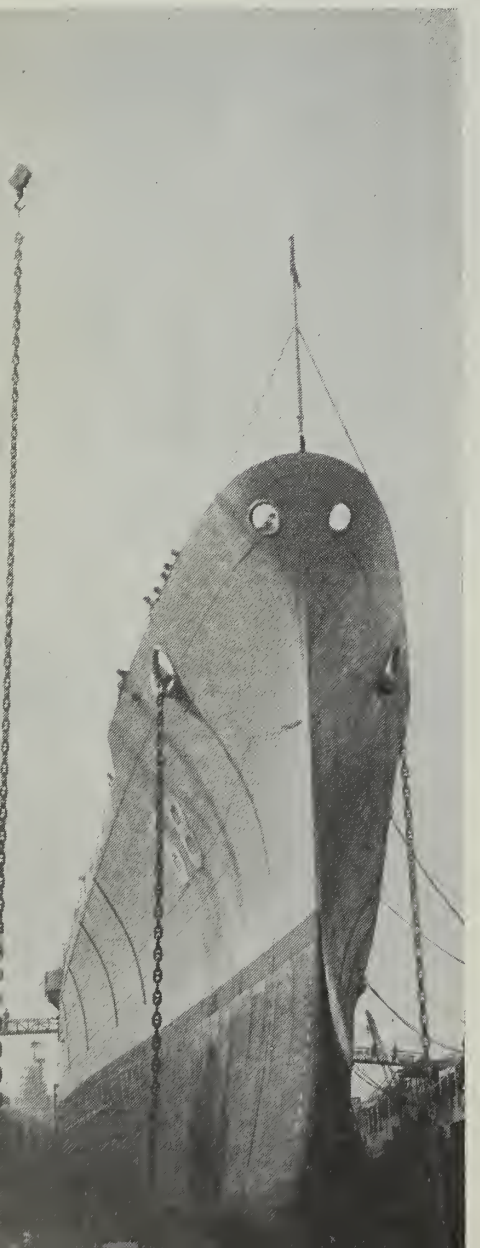
PASSING THE WORD on messing skill throughout the Fleet, team members show activities how to improve mess from coffee making to menu planning.

FANCY TOUCH is taught for decorating birthday tables and making food look appetizing. *Below Left:* Making soup. *Right:* Preparing turkey dinner.



HIGH AND DRY — *USS Baltimore* (CA 68) gets her entire hull put in top shape.

Navy Recipe for c



THE BAND PLAYED a slow "Auld Lang Syne," the watch marched off and a few minutes later the skipper turned his ship over to Commander, Bremerton Group, Pacific Reserve Fleet. USS *Baltimore* (CA 68), a veteran of World War II action from the Gilbert Islands to the China Sea had joined the mothball fleet. Her sister ship, USS *Boston* (CAG-1) — only a few weeks younger—has gone on with the new Navy as a guided missile cruiser.

The '*Baltimore* Story', as her skipper pointed out in a letter to families of the ship's crew, marks a very definite end to what is already an old Navy, the Navy of World War II. At the same time the Navy is looking ahead.

Someday, when she's needed again, *Baltimore* may be back as part of the Fleet of the future. For, although most people picture a mothballed ship as a lifeless hulk, covered with grey paint and cocoon-like webs of preservative material, few realize how much of the work of mothballing is done to make it possible for the ship to return to active service in a minimum of time.

The techniques of mothballing are as varied as there are different kinds of guns and machinery aboard a ship. But, in general, there are three essential steps in the process:

• First, so that the crew which comes on board to activate the ship at some future date may know exactly where every piece of gear is and what has been done to preserve it, check-off lists are made up for every compartment, storeroom, gun or piece of machinery. The list for each separate compartment is placed in a folder and left in that compartment for easy reference. Any equipment that has been moved for storage elsewhere, such as a fan in a living space, is tagged to show where it belongs, and a tag is also hung in the space it occupied to indicate what it is and where it is stowed.

• Second, the ship's metal structure, machinery and equipment must be protected from rust and corrosion. Painted metal surfaces are chipped, wire brushed and painted. Bare metal surfaces, such as the internal mechanism of a gun, are coated with thin film rust preventives. These are used instead of normal lubricants and preservatives, since they do a better job of protection over a long period of time. The compounds vary in degree of consistency and resistance to temperature change according to the job for which they're employed. External openings, such as gun muzzles, are sealed from the weather by a liquid plastic spray. When it dries, the spray leaves a durable plastic coating that prevents moisture from entering, yet can be stripped off easily. The tompion of a gun is also sprayed over with plastic so that the barrel is protected from the weather in two ways, by the preservative coating inside and by the careful sealing of the muzzle.

• Third, the entire outside or "skin" of the ship can be closed airtight and watertight to protect the interior from possible radioactive fallout, and can serve as a line of defense against moisture-carrying air. When all piping for steam and water has been drained and dried and all the other inactivation work has been done, the ship is closed up tight and the hull is sealed in a protective envelope. The inside air can then be dehumidified by two methods—dynamic and static dehumidification—which not only stop corrosion but also prevent rot and mildew. Through these methods elec-

trical insulation, for example, is dried out so thoroughly that not even vermin can get enough water to live.

Dynamic dehumidification is accomplished for the most part by special piping, and by opening the ship's firemain system into each compartment to circulate dry air. The air thus displaced circulates back through the dehumidification machine, which automatically records and controls the level of humidity. Inside the machine, beds of silica gel (a drying agent) draw moisture from the air as it passes through. At regular intervals these beds are changed as they become saturated.

Static dehumidification is employed where it is not possible to expose certain machinery to air under dynamic dehumidification. In this case the space is completely enclosed and perforated five-pound cans of silica gel are placed within the space to absorb moisture from the air.

hip in a Pickle

But what does mothballing mean to the crew of a ship?

It means a lot of work. Even before the ship reaches the Navy yard where inactivation will take place, there is plenty to be done. Mountains of papers, logs and books have to be tackled. The ship's allowance lists, current maintenance program, materiel histories, file of alterations, field changes to electronic gear, damage control books and booklets of plans must all be reviewed and brought up-to-date. Repair requests, for work to be done by the yard, are also drawn up in anticipation of the overhaul period to come.

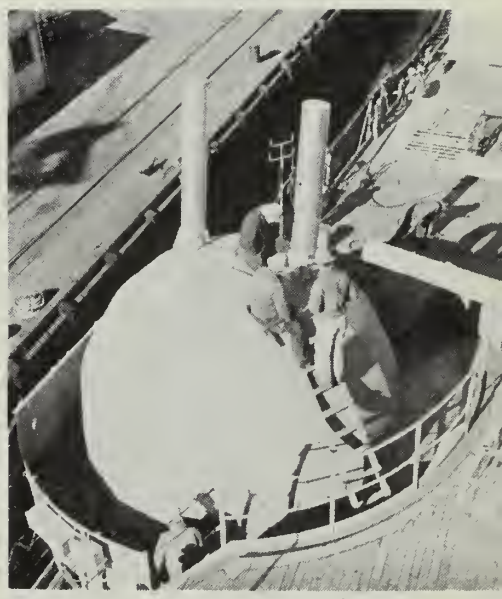
Preparatory work goes on elsewhere in the ship besides the ship's offices. For the mass of steel that has traveled over so many miles of ocean must be in top physical shape before she is turned over to the inactive fleet. Consequently, intensive preservative painting and machinery repair work is begun. The emphasis changes from polished brightwork and fancy servings, the pride of every boatswain's mate, to much less glamorous grey paint.

The crew is also instructed in various mothballing techniques and an organization for the inactivation work is set up by the commanding officer. An inactivation officer is appointed, along with officers responsible for records, allowance and inventory, preservation, classified material and stowage spaces.

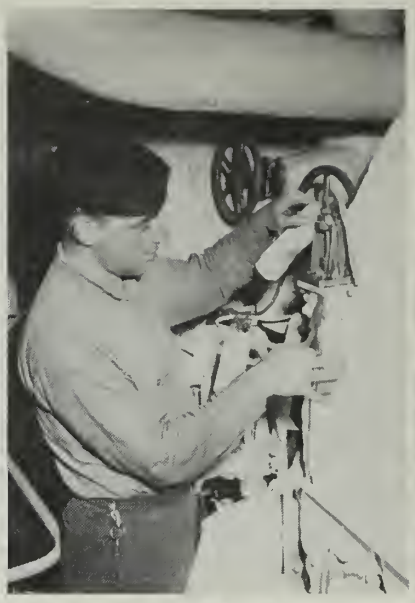
Progress charts are drawn up to be filled in as the ship advances toward final decommissioning. Priorities are assigned to the jobs to be done. The check-off sheets, to guide both those who put the ship out of commission and those who will return her to active duty, are carefully compiled.

When the ship gets to the yard she is ready to begin the first of two phases of inactivation. Phase

DURING THE MOTHBALLING process the large cruiser gets every inch scraped and painted inside and out. Here crew members apply new paint in an uptake.



COVER JOB—'Hut' is lowered over 3-inch 50 mount and 'stovepipes' are welded over gun barrels to complete one of the tight protective cocoons.



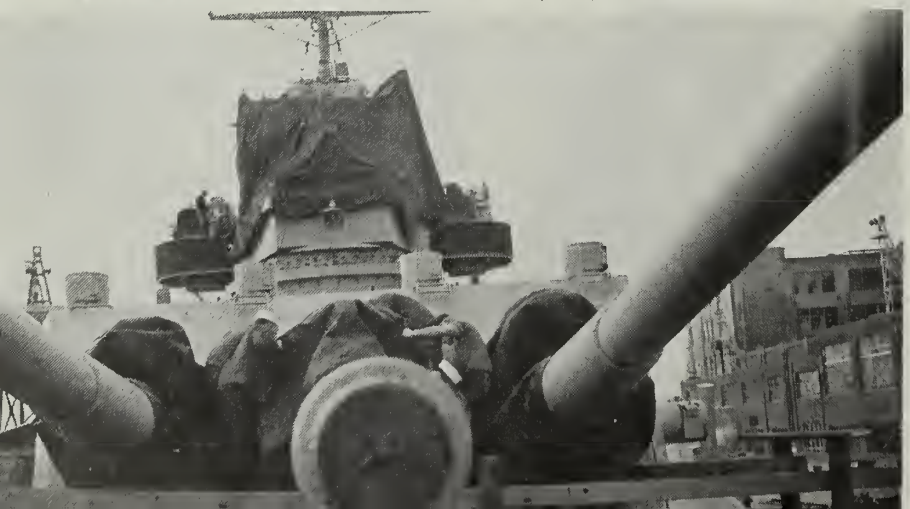
MACHINERY IS DEACTIVATED and covered with rust preventive compound. Small parts are hung alongside in bags.

DECOMMISSIONING CEREMONY

In case you've never seen a decommissioning ceremony here's a program for the sendoff the crew and guests gave USS *Baltimore* the day she officially went into mothballs:

Commanding Officer, Captain Scarritt Adams, USN, reads Invocation
Inactivation Directive and his orders.
Address by Commanding Officer
The National Colors, Union Jack and Commission Pennant are hauled down. Bugler sounds "Colors."
The Commanding Officer signs last log.
The National Colors are presented to Miss Ruth C. Cullin, of Baltimore, Commissioner of Finance for City of Bremerton on behalf of the Mayor of Bremerton, the Honorable H. O. Domstad.
The Executive Officer, Commander Gideon M. Boyd, USN, presents Commission Pennant to the Commanding Officer.
"Pipe Down" by the Boatswain's Chorus
"Secure the Watch." The Watch marches off.
The Commanding Officer turns USS *Baltimore* over to the Commander, Bremerton Group, Pacific Reserve Fleet.
Commander, Bremerton Group sets the Security Watch.
Address by Commander, Bremerton Group.
"The Star Spangled Banner" by the band of the THIRTEENTH Naval District Headquarters.

CRUISERMEN REMOVE bucklers from their ship's big eight-inch guns as muzzles are sealed and *USS Baltimore* is made ready to join the Pacific Reserve Fleet.



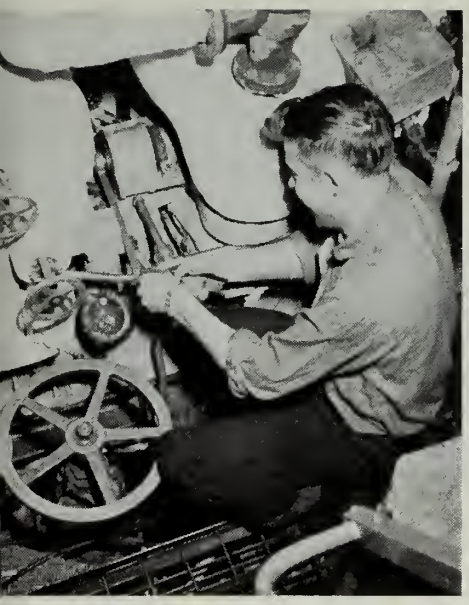
ALFA, as it is called, is principally a regular yard overhaul period. During this time the facilities of the shipyard are available for such repairs and alterations to the ship's guns, machinery and equipment as may be necessary to meet the up-to-date standards of a modern Navy.

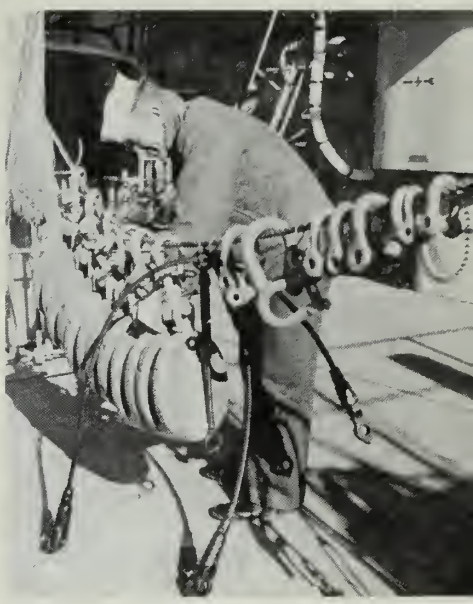
Toward the end of Phase *ALFA* the first increment of the crew leaves the ship for new duty assignments. As work progresses and less and less remains to be done, other units of the crew leave. About a third of the original ship's company remains to the end.

But the real work of inactivation begins in Phase BRAVO, carried out by the crew with the help of the Reserve Fleet which will be the ship's custodian while she is in mothballs. Preservatives are applied, gear is tagged and stowed and check-off lists are complied with and initialed. The ship goes into drydock, the underwater hull is cleaned and painted and all outboard sea connections are blanked off. Topsides and below decks receive their protective paint too.

Antiaircraft guns and all delicate equipment exposed to the weather are placed under metal enclosures, or "huts." Piping is drained and dried, boilers are cleaned and hazardous and perishable items like paints and foodstores are off-loaded. All antennas are stowed below in dehumidified air. Gun mechanisms are taken apart, preserved and reassembled.

Instead of the heavy preservatives





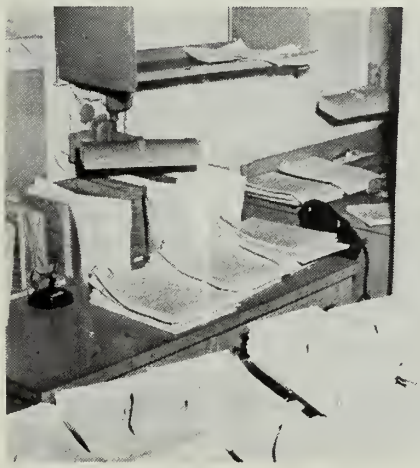
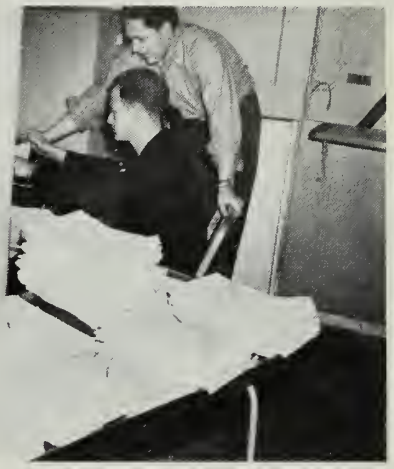
SHAFT OF FEED pump is locked, main feed check valve is inactivated, and blocks and shackles are hung for treatment.

which were once used to protect main engine turbines, dehumidified air is now pumped directly into them to make it easier and faster to demothball the ship. The huge smoke stacks are cleaned, scraped and painted, inside and out, and their tops are blanked off and sealed. Spare parts are carefully inventoried and stocks are replenished where necessary. The crew moves ashore to live in barracks while chipping hammers and paint brushes are put to work in living compartments.

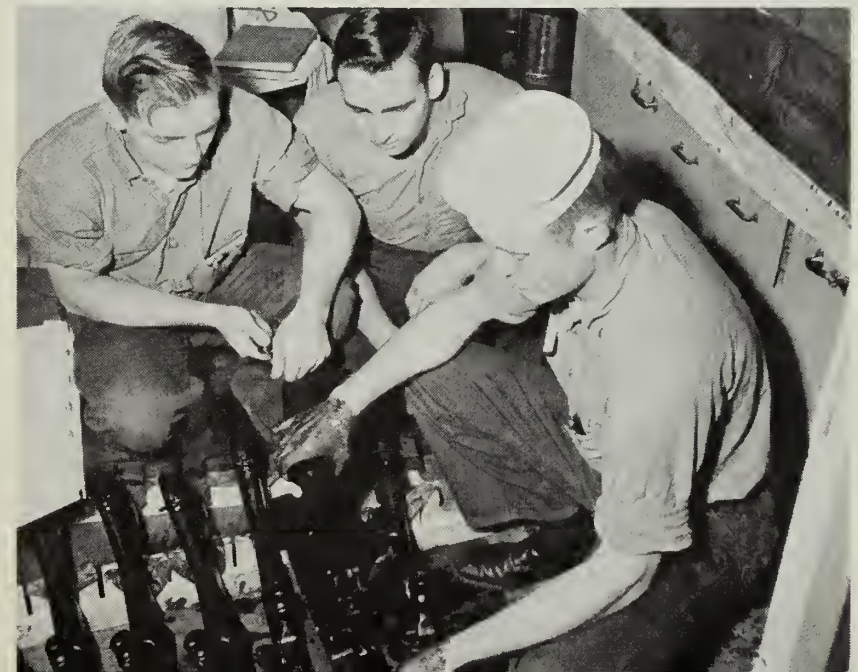
Finally, the day arrives when the ship is clean and quiet, completely sealed up so that the D/H machines installed by the shipyard may do their work of keeping her dry inside. Personnel from the Reserve Fleet make a thorough check to be sure the ship is properly preserved. The staff crew members have the satisfaction of knowing their ship is well prepared to lie in rest until called to action again. The watch, quarter and station bills, which will assign each man of her future crew a job, are on board, waiting the names of those who may sail her again.

All that is left is for the captain to read his orders and the order transferring the ship to the inactive fleet. His last commands are to secure the watch and haul down the colors. The Commander, Reserve Fleet Group, accepts the ship in the name of his activity and sets the security watch.

Another ship has gone into mothballs.— E. C. Bursk, LTJG, USN.

BEHIND THE SCENE piles of paper work keep track of every phase of deactivation. *Below:* Small arms like these submachine guns are put to sleep with ship.



NEW FRIENDS—Tin can sailors chat with Australian girl while visiting WW I memorial in Sydney's Hyde Park.

OPEN HOUSE—Friends down under swarmed aboard DDs. *Below:* In town Navymen get advice from policeman.

DESTROYERS slice through Pacific on way to goodwill visit in Australia.

Australia Puts Out the Red Carpet

The red carpet treatment that men of four destroyers received while making a recent goodwill cruise to Sydney, Australia, will remind old-timers of the "good old days"—when Australia was no less than a second home to American men of all services—and will cause the younger salts to wonder just why Uncle Sam hadn't dispatched them as goodwill ambassadors to the continent-down-under more often.

Only 50 of the 1000 Destroyer Division 171 sailors who made this first goodwill trip to Australia in two years had been there previously, but most of the newcomers took little time in agreeing with their predecessors that Australians are "the friendliest people in the world."

Providing enough men to fill all the invitations extended proved to be the most difficult job the ships' staffs encountered during the entire trip. After preparing a social calendar before arrival, USS *Gregory* (DD 802), *Porterfield* (DD 682), *Halsey Powell* (DD 686) and *Marshall* (DD 676) were no more than moored before they were deluged with additional invitations.

"After all," explained one lady, "we don't get to see them very often and we like to show them a good time while they're here." The rest of the populace seemed to agree with her.

The government cooperated by offering free transportation on public conveyances and an American uniform was an admission ticket to Randwick races, Taronga Zoological Gardens, or the mammoth annual Agricultural Society Show.

While the Navymen were making a tour of Sydney and the surrounding countryside, weighted down with cameras and usually escorted by one or more volunteer Aussie guides, approximately 32,000 Sydney citizens streamed across the brows of the four warships to get a close-up view of American sea power.

Open house was held each afternoon during the five-day visit and 10,000 people toured the vessels in one day.

Although they were guests for the day, the people of Sydney couldn't forget their role as hosts and many more personal invitations were offered to the sailors. They were eager to have the Americans join them for dinners, shows, parties and drives.

Among many of the visitors were Australian sailors who boarded the Yank ships to exchange shop talk with the men of the San Diego-based destroyers. Sailors of HMAS *Penguin*, Local Training and Sub Depot, feted petty officers with a luncheon and tour of the depot's facilities.

Even men on duty were taken care of when a group of entertainers came aboard the flagship *Gregory* one evening and presented a variety revue for the duty-bound sailors of the Division.

As the men of DesDiv 171 prepared to get underway following less than a week of good times, a large group of Aussies was on hand to bid the visitors farewell—and many of the U. S. travelers had made definite plans to return.

—Dale Lytton, JO2, USN.

LETTERS TO THE EDITOR

Qualifying for Commission

SIR: I would like to know if a degree in accounting from an extension university would be accepted as the equivalent of a degree from one of the state colleges. I would like to change my rate to SK or DK and eventually apply for a commission in the Supply Corps and an acceptable degree in accounting would certainly be in my favor.—A. W., RD3, USN.

• *The Navy has no facilities for passing on the acceptability of work done at various educational institutions and so it must rely on the established accrediting agencies for this purpose. The Navy has selected "Part 3, Educational Directory of Higher Education, 1954-55" published by the Department of Health, Education and Welfare, Office of Education, as its criterion for judging the accreditation of institutions of higher learning. From a review of this publication, it is noted that the particular institution you mention is not listed as accredited. Accordingly, graduates from that institution cannot be considered as educationally qualified for appointment to commissioned grade in the Navy at the present time.*

For your information, BuPers Inst. 1120.18C, the recent in-service procurement instruction, provides for consideration of applicants who are high school graduates and have obtained a minimum score of 60 on the GCT or ARI tests. This instruction outlines the eligibility requirements applicable only to Regular Navy enlisted and warrant officer personnel for appointment to commissioned status in the Line or Staff Corps of the U. S. Navy. If you're interested, you should contact your Information and Education Officer regarding your eligibility under this particular instruction.—ED.

Travel Time

SIR: Article C-5317 (3) (a) of *BuPers Manual* states that fractional parts of 24 hours will be counted as whole days for purpose of allowable travel time. Does this mean that a man released from a station at 1200 with one day's travel time and no leave or proceed time would have to report to his new station by 2400 the same day?—R. F. B., PNSN, USN.

• *No. The day of departure is considered a day of duty, so that the man's travel time would not begin until that midnight. Thus, if he departed at 1200 on 1 June, he would not have to report to his new station until 2400 of the following day (2 June).*—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Switching to ET

SIR: Many of us "convertees" in the training program for the switch to ET ratings have been unable to find answers to these questions locally. Could you help us out?

1. Does the time we spend attending the conversion course count as shore duty, resulting in the loss of our previously accumulated sea time, or is it counted as "dead time" for purposes of sea-shore rotation? In most cases the elapsed time between the last duty station and reporting to a new duty station upon completion of the school (including leave, travel and proceed time) is about 14 months.

2. When a CPOA's rating is changed to ETCA, is his date of acting appointment that of his new rating or of his previous one?—R.M.P., QMCA, USN.

• *Here are your answers.*

1. If you successfully complete the conversion course the period you spend attending it is considered "dead time." If you don't complete the course, your actual tour of duty would come to less than one year, and would therefore not be counted either.

2. Your date of acting appointment would be that of your previous rating, since a CPOA who changes rating is considered to have served with an acting appointment from the date he was first advanced to pay grade E-7, regardless of subsequent rating changes.—ED.

Delayed Exam for Advancement

SIR: Can a man take a delayed test when he is on emergency leave during Fleet-wide competitive examinations for his rate?

I know that patients in naval hospitals are allowed to take make-up exams when they get out, but I have talked to several yeomen about the case of a man on emergency leave and each one came up with a different answer. Can you refer me to the appropriate BuPers Instruction or other directive on the subject?—L. K. P., ETI, USN.

• *Yes, a man on emergency leave or one otherwise prevented from taking the Fleet-wide competitive examination, through no fault of his own, is normally allowed to take a delayed substitute exam, according to NavPers 15828A: "Instructions for the Administration of Examinations for Advancement to Pay Grades E-4, E-5, E-6, and E-7."*

Evidently the yeomen you've talked to haven't been on the ball, or they could have saved you the trouble and delay of writing to us. In March 1956, ALL HANDS *carried a lengthy list showing where to look for what you want to know. A quick check of the list would have referred the yeoman to BuPers Inst. 1418.7B, which in turn would have referred him to the correct source of information. As a test, we phoned a yeoman picked at random at PRNC to get the info on this question. It took him just 30 seconds to find the relevant instruction and only one minute and 15 seconds to explain the answer.*—ED.

Choice of Duty Station

SIR: According to recent directives, a man reenlisting for the first time is entitled to receive his choice of duty station whenever the needs of the service permit. I would like to know if a man shipping over *after* the first time is also entitled to the same guarantee, even though it might mean a coast-to-coast transfer, such as from the Atlantic to the Pacific or vice-versa. — D.H.S., YN2, USN.

• *BuPers Inst. 1306.25B, concerning choice of duty station upon reenlistment, makes no distinction between first or later reenlistments. Therefore, a man shipping over, regardless of which enlistment he is on, is entitled to the same guarantees as one reenlisting for the first time. Since this includes the privilege of choosing a Fleet command with a home port on the continental U. S. coast of your choice, requests for coast-to-coast transfer are granted.*

However, this program does not apply to a few highly technical rates or to personnel holding certain special job code numbers. It is also somewhat modified in the case of Navymen shipping over from three months to one year early. For details on these exceptions and modifications see ALL HANDS *for June, 1955, or BuPers Inst. 1306.25C.*—ED.

Faking and Flemishing

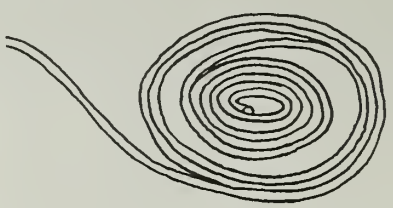
SIR: Perhaps they are just mistakes in phrasing, and they are not too noticeable to anyone other than a boatswain's mate, but the methods you describe for faking and flemishing down a line (ALL HANDS, January 1956, centerspread on knots) are in error, I think.

In both these instances, your text states that you should begin by laying the free end of the line down and then work toward the other end. Now, in normal Navy terms a free end means the bitter end, or the end that is not secured. So, from your text I assume that your faked line and your flemished line each have one end secured to some object, a davit, bitt or stanchion, perhaps.

When I was trained to do flemishing and faking down of lines, woe to me if I had ever started with the free end of the line. The reason for beginning as near the secured end as possible is to work out all kinks and twists in the line as you make it up. By beginning at the free end and working toward the secured end, you would find it extremely difficult to work out the kinks or twists.

Of course, beginning with the secured end as you fake or coil down line means that you have to turn the finished coil upside down to free the line for running, and you must flip all your fakes in the direction opposite to that in which they were laid. But I think this is the proper method of doing the job.

As for flemishing, I consider it a much easier task to begin with a large coil and work toward the center of the "spring;" this can be done very rapidly without causing a single kink in the line. The "spring" is then tightened by placing the palms of both hands on the line and twisting toward the center, clockwise if the line is right-handed lay or counter-clockwise for left-handed lay line.



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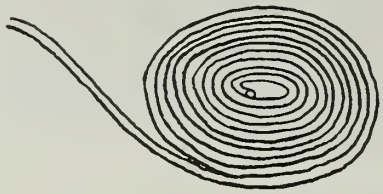
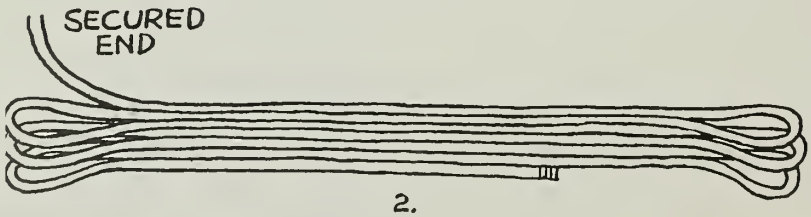


2.

I do not intend this letter to be critical, for in my opinion your magazine does a wonderful job in keeping us up to date on many subjects. And I might add that if the method you illustrate is now taken to be correct my face will be very, very red.—T. W. A. Jr., BMC, USN.

• *Chief, your method of flemishing down a line is entirely correct. In our article we presupposed in the flemish down illustration that the line had already been coiled down loosely starting, as you say, from the secured end. Now that the line is coiled and the kinks removed in so doing, the flemishing is commenced from the bitter end in the center and the coil made more neat by laying out the circle flat and adjacent. Our illustration was not too clear. Refer to the Navy Training Course "Seaman" (NavPers 10120-B), pages 94 and 95, for a description of the accepted method of flemishing down. Your method is also best for faking a line.*—ED.

1.



2.

Stationkeeper Duty

SIR: I would like some information on stationkeeper duty in the organized Naval Reserve. Is such a job active duty? How does one obtain it? Can I retain my same rate? Are there chances for further advancement? Get the idea?—C. W. J., BT1, USN.

• *We got you, lad. BuPers Inst. 1001.7A outlines the procedures for certain enlisted personnel to be ordered to active duty in connection with the training and administration of the Naval Reserve.*

You make application for this type duty to the commandant of the district in which duty is desired and, if ordered to active duty, you would retain your rate. Advancement will vary in each district according to the number of billets either unfilled or filled with personnel of a lower pay grade. It is impossible to predict your chances of advancement since that chance will vary from district to district.

All Training and Administration of Reserve (TAR) personnel are on active duty, with TARs entitled to all benefits that USN personnel receive except shipping-over pay (that being excluded by law).

Any additional information you may desire concerning the TAR program should be requested from the commandant of the district in which you desire the duty.—ED.

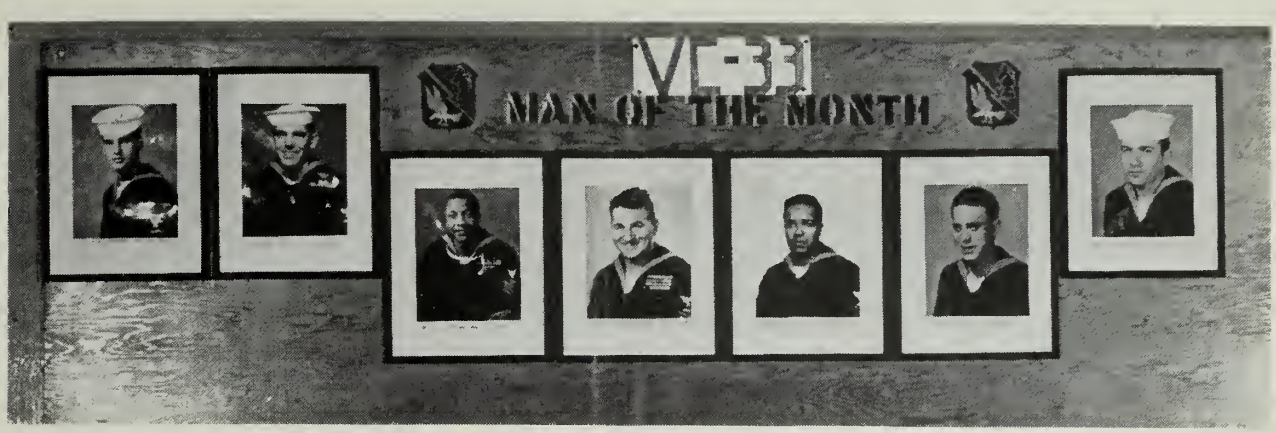
Reinstatement of Insurance

SIR: I cashed in my NSLI policy in 1955. Now I'd like to reinstate it by paying back the money and all due premiums to the Veterans Administration. However, the VA says I can't do this unless I am separated from the Navy. I was discharged in September 1955, but since I reenlisted they say this doesn't count as separation from the service. Would you please give me your interpretation of P. L. 23 (82nd Congress), which is the governing factor in this matter?—F. G. W., CT1, USN.

• *Guess you're out of luck.*

Section 5 of P. L. 23 states that, "Any person in active service, who is insured under a permanent plan of National Service life insurance or United States Government Life Insurance, may elect to surrender such contract for its cash value. In any such case the person, upon application in writing made within one hundred and twenty days after separation from active service, may be granted, without medical examination, permanent plan insurance on the same plan not in excess of the amount surrendered for cash, or may reinstate such surrendered insurance upon payment of the required reserve and the premium for the current month."

Since the law makes no provision for the reinstatement of a cash surrendered policy by a man on active duty, you are precluded from doing this until you return to civilian life.—ED.



'MAN OF THE MONTH' bulletin board at VC-33, NAS Atlantic City, also has birthday and stork club panels.

18-Inch Guns

SIR: Perhaps I can add fuel to the continuing item concerning 18-inch guns. I was a junior officer in USS *Chicago* which was being overhauled at Mare Island Naval Shipyard in the fall of 1935. I remember with interest the 18-inch gun over on the dock side. I recall that it actually had an 18-inch bore. It was resting, not on blocks as described previously, but on a special set of railroad gun trucks. The interesting feature was that the trucks had been furnished by the Navy and sent clear across the continent by rail in order to take the 18-inch guns (which had been brought to Mare Island by ship) on a 40-mile trip by rail over to the Marin County (north) side of the Golden Gate to be used as part of the Army's Coast Artillery defenses. After their use for four of these short hauls, the special railroad gun trucks were to be sent back across the continent empty for return to the Navy.

Another question raised was ballast for the USS *Relief*. When I was a plebe in 1931, one of the standard questions for which we needed a ready answer was, "What ship in the Navy has the most guns?" the correct answer was "USS *Relief*, because she uses guns for ballast." It was not made clear at the time whether the ballast was in the form of actual guns imbedded in concrete, or former guns reduced to melted scrap pigs.—J. W. Thompson, CAPT., USN.

• *Thank you, Captain, for your comments. This discussion is becoming more interesting by the letter. Our research still hasn't been able to prove—or disprove—any of the items. However, with all the letters coming in, plus what we've uncovered in our research, we eventually may be able to run a full length feature story on 18-inch guns.*

As a matter of interest, here's what the book "Bureau of Ordnance in World War II" has to say about 18-inch guns: "Of historical interest only is the fact that the Bureau developed an 18-inch gun. Lined down to 16-inches after the 1922 disarmament treaty, the 16" /57 fired the longest shot ever ranged at Dahlgren, Va. So tremendous was the gun that a ship of about 70,000 tons would be required to use it profitably. No production was ever planned for this weapon."

The Japanese, during WW II, had both the Yamato *and* Musashi *armed with 18-inch rifles.*

Anyone who can add to this discussion can get more background material in the ALL HANDS *issues of January, April and December, 1955.*

The floor is open and the "chair" stands ready to recognize anybody who can contribute to the discussion.—ED.

Uniforms of Reservists

SIR: A shipmate and I got to talking the other night about the four years each of us were obligated to serve in the Reserves once we are discharged from the Regular Navy. My buddy believes that we are required to maintain our uniforms and other naval gear in proper shape as long as we are in the Reserves. I believe that the Navy doesn't require an individual to keep track of his gear for such a long period of time, especially after that same gear has already been used for four years.

Please let us know which is right and where you found the reference.—J.R.B., YN3, USN.

• *If you affiliate with a pay unit of the Naval Reserve, you will be required to produce your active duty uniforms. You will be required to use such items as are serviceable, while unserviceable items will be replaced on an item-for-item basis.*

Your reference is paragraph 2.a, (4) and (5), Enclosure (2) of BuPers Inst. 1020.4.

If you do not affiliate with a Reserve pay unit—or if you have no obligated time and are discharged—there isn't much the Navy can say about how you dispose of your gear. However, if you remain in the Reserve and are recalled in a time of emergency, it will be to your advantage to have available serviceable items of your active duty uniform.—ED.

Space Available Transportation

SIR: I have heard that you can answer any question which is put to you about a Navyman's problems. Mine isn't unusual, but I haven't been able to find the solution to it locally.

Since I am a PO3 with less than four years' service, I'm not entitled to concurrent travel, but I've received orders to permanent shore duty in Japan and would like to have my wife over there with me. Is there some other way I can arrange government transportation for her?—R.D.C., CT3, USN.

• *We don't know all the answers. It just looks that way because the questions we can't answer don't usually appear in the magazine. However, we can help you out on this one.*

As you know, concurrent travel cannot be authorized in your case. But, after you report to your overseas station and obtain housing for your dependents, you may submit a request for their transportation. If the request is approved by your command, your family may be furnished transportation, via an MSTS vessel, on a space available basis.—ED.

Advancement Multiple

SIR: In the present enlisted advancement system, it seems to me to be of doubtful benefit to give a man points for time in grade, time in service, and medals and awards. I think a man should be promoted on the basis of his military and professional skill, with absolutely no "aid" from any other qualifications he may possess. At least the Navy would get better-qualified petty officers that way.

The present system also creates a very severe, and unfair, handicap for those of us who are "junior" in time in grade. Apparently, the Navy is not very interested in retaining the junior men, but in their stead, have chosen literally to give promotions to the "old timers" so they will stay in the service.—L. K. L.,AD1, USN.

• *There are many viewpoints on the present method of computing advancement multiples, and on the present dis-*

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• *Naval Reserve Association*—A reunion will be held at the Hotel Hollenden, Cleveland, Ohio, on 8 September. For further information, write to Naval Reserve Association, National Press Building, Washington, D.C.

• USS *Nevada* (BB 36)—The third annual reunion of former crew members will be held at the Lafayette Hotel, Long Beach, Calif., 3 November. Contact W. E. Larsen, 8011 San Dimas Circle, Buena Park, Calif.

• USS *Santa Fe* (CL 60)—The 10th annual reunion will be held 15 October at the Piccadilly Hotel, New York City. Write to Ernest Laporte, 342 Madison Ave., New York 17, N. Y.

• *North Sea Mine Force Association*—A reunion will be held at the Hotel New Yorker, New York City, 11, 12, 13 October. For information contact J. J. Kammer, 454 Walnut Ave., Floral Park, L. I., N. Y.

• *107th Seabees*—Second annual reunion will be held at William Penn Hotel, Pittsburgh, Pa., 1-3 September. For more details write to Sam Bodell, 956 Brintell Ave., Pittsburgh, Pa.

• *Subarine Veterans of* WW II—A reunion will be held at the Ambassador Hotel, Atlantic City, 28-30 September. For more details write Joseph P. Greco, 530 Rahway Ave., Woodbridge, N. J.

• USS *Sloat* (DE 245)—A possible reunion will be held in October. Interested persons should contact T. P. Quinlan, 35-16 34th St., L. I. C., N. Y.

• USS LST 618—Former crew members interested in a reunion to be held in Staunton, Va., write to G. B. Ramsey, 1520 Dennison Avenue, Staunton, Va.

• USS *Pavo* (AK 139)—Former crew members and officers interested in holding a reunion with time and place to be decided by mutual consent, contact Willie G. Wilson, P. O. Box 732, Muleshoe, Texas.

tribution of credits, but in nearly every case the viewpoint is colored by the personal situation of the man concerned. The present advancement multiple is based upon factors which are believed to be those best suited to filling the Navy's needs for the best qualified petty officers in the various ratings. Use of credits for time in service and in rate result from the belief that years of experience increase the capabilities and therefore the usefulness of personnel in the Navy. Often, however, men with long years of service are less adept at competing in written examinations than are younger men with less experience. Since experience is not readily measurable by a written exam, credit for time in service is considered appropriate.

Unless adequate credit were given for years of faithful service, it would be entirely possible for two persons of actual equal ability to fare far differently in advancement. Even under the present system the man who has the greater skill in competing in written examinations can be expected to advance more rapidly than one who is less skilled. Unless credits were given for service, it would be probable that those men who are less skilled at competing in exams would never have the opportunity to advance to CPO. Their inability to make a good exam score would preclude their advancement, no matter how excellent their actual performance. It would be unacceptable to do this, for the man who has the actual ability to do the job could be prevented from advancing to CPO no matter how many years he stayed in service.

The problems you state do have considerable merit, but your suggested remedy is not entirely adaptable to the Navy's advancement needs. The advancement system is under continuing review to insure that the procedures in use do accomplish their intended purpose. A study has indicated that none of the existing credits for advancement adequately reflect a person's actual ability to "perform on the job." A system has been developed to include a "performance credit" in the final multiple no later than August 1957. The addition of such a credit will make it possible for an outstanding younger man to exceed the final multiple of a man with greater time in service, but who is less well fitted to perform the duties of his rate and to attain a high mark on a written examination.—ED.

USN and USNR Advancements

SIR: There's considerable talk around our outfit about the Reservists who come on active duty and block the advancement of Regular Navy career men. The situation is said to be particularly bad in the Seabee companies. I don't think it's so, but of course I can't prove it. Can you give me some ammunition to support my position—if I'm right?—W.C.S., CM1, USN.

• *The answer is simple. No Reservist blocks the advancement of any qualified USN personnel.*

Here's your ammunition, and there's plenty more if you need it.

Granted there are some rates in which Reservists are desired to volunteer for active duty, but these rates are those in which there is a shortage of personnel on board with the Regular Naval Establishment. Since there is not a sufficient number of personnel in these rates, there is no restriction due to quota limitations placed on advancements to them. All personnel who successfully complete the service-wide advancement in rating examination for these rates, and are otherwise qualified, are advanced.

Reservists are NOT *recalled to active duty in those rates where all personnel who pass the service-wide examination for the rate cannot be advanced because of quota limitations.*

Once a Reservist is ordered to active duty with the Regular Establishment, he competes with USN personnel in his rate on an equal basis. Since the career man normally has more active duty than the Reservist, and the chances of awards are equal, the Reservist will have to make a higher mark on the examination in order to have a final multiple equal to the Regular.

In the February 1956 exams, for example, in all but 50 rates (rates, you'll notice, not ratings), every person who passed the examination was advanced. In the 50 rates to which advancement was restricted because of quota limitations, approximately 30 per cent of each category, USN and USNR on active duty, who passed the examination were advanced. You'll find a breakdown of these figures in the July issue of ALL HANDS.

Here's the scoop on the Seabees: In the 28 ratings which comprise the Construction Group (Group VIII), all personnel who successfully completed the examination for advancement to every rate but CMC were advanced. In this rate, 30 USN and four USNR CM1s passed the examination. Since quota limitations made it possible to advance only 22 men to CMCA, the final multiple of those who successfully completed the examination was computed and the 22 with the highest multiple were authorized to be advanced.

Of these 22, 21 were USN and one was USNR. While the percentages in Group VIII may not necessarily be the same as in all rating groups, it can be considered as representative.

It might also be mentioned that the presence of Reservists on active duty in the TAR program has no effect on advancement of USN or USNR personnel on active duty in the Regular Establishment. TAR personnel are advanced after successfully passing the service-wide examinations, only to fill vacancies in TAR billets. Their advancements are not connected with advancements in the Regular Naval Establishment.

Do you think these facts will convince your Seabee pals?—ED.

Medical Service Corps

SIR: I was discharged from the Navy as an HM2 in May 1955, following a four-year enlistment. Since then I have been going to college, from which I plan to graduate in June 1957, with a B. S. degree in chemistry. After that I would like to make the Navy my career.

I know it's too late for me to reenlist in my former rate, but what are the chances of obtaining a commission in the Medical Corps?—H. W., Stockton, Calif.

• *Your best bet would be the MSC (Allied Science) Program, which requires a degree in a science allied to medicine, with at least 30 semester hours in your major subject. This program provides active-duty Reserve or Regular enlisted men and officers (of any rank or rate) an opportunity to become ensigns, MSC, in the Regular Navy. To qualify, you would have to complete your studies and return to active duty before you were 32. (Although chemistry is considered an allied science in this program, it is not considered as such for purposes of obtaining a Reserve MSC commission).*

Another possibility might be the MSC (Supply and Administration) Program, which requires only a high school education. However, since this program is designed to open a path to commission, MSC, for Regular Navy HM1 and above, you would have to return to the Regular Navy and make HM1 before you were 32 in order to be eligible.

Naturally, selection in either program would depend on the needs of the service at the time you applied. You would also have to pass a professional examination and be recommended for appointment by the Naval Examining Board, National Naval Medical Center, Bethesda, Md.

First Class Navyman

SIR: Since the end of World War II, we have seen published in Navy Department Instructions and Notices, Naval Academy papers and even in ALL HANDS, references such as: Second Class Midshipman; Third Class Midshipman; Second Class Petty Officer; and Third Class Petty Officer.

When we are trying to keep up the traditional Navy morale, why should we refer to a man as second class or third class? There is no room in the Navy for a second class or third class midshipman or petty officer. All of our midshipmen and petty officers are first class, regardless of rate. If a man is a second class petty officer, third class, then he should either be encouraged to strive to become a first class petty officer, third class, or his quarterly marks lowered to "rate" him a SN.

For your information, the correct terminology is: midshipman, second class; midshipman, third class; petty officer, second class; petty officer, third class.

I think we should bear in mind that all our members are FIRST CLASS. —Hilary C. Rowe, CAPT, USN.

• *Right you are, Captain. If* ALL HANDS *has slipped in this respect, we extend to you and the affected individuals, our sincere apologies. Your letter aroused considerable interest in the Bureau and each reader concurred most heartily with your views.*—ED.

Overcoat for Aviation Uniform

SIR: What is the appropriate overcoat that may be worn with the CPO aviation winter working uniform? It's my understanding that the blue raincoat will be abolished as part of the uniform in the near future. My question is, will the blue raincoat be replaced by the blue overcoat for wearing with the aviation winter working uniform or will the khaki raincoat be worn in its place?

Under existing regulations, is the khaki raincoat prescribed as authorized uniform to be worn with the aviation winter working uniform for CPOs? *Uniform Regulations* is not too clear on this question.—D.W.L., YNC, USN.

• *It is planned to clarify the authorization for CPOs to wear either the khaki raincoat or aviation winter working overcoat, in "Uniform Regulations." The new medium-weight blue overcoat is authorized for officers and CPOs in lieu of the blue raincoat, either now or later, upon all occasions and over all uniforms.*

Meanwhile, officers and CPOs are authorized to wear either the khaki raincoat, aviation winter working overcoat, the blue raincoat, or the blue overcoat, with aviation winter working uniforms at individual option or as prescribed by your local commanding officer.—ED.

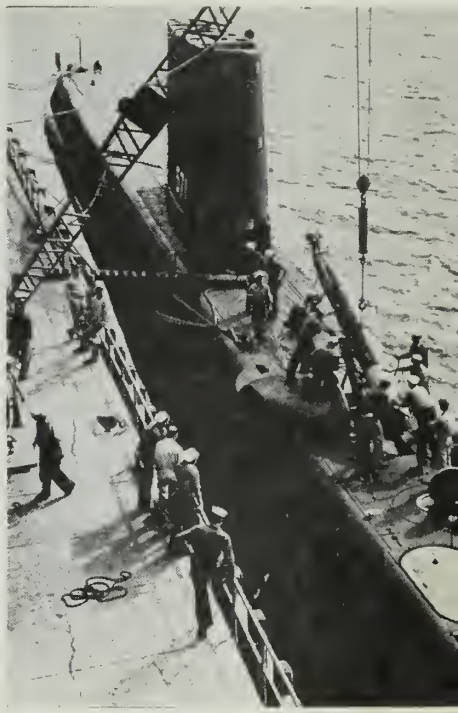
From ENS to LTJG

SIR: I have heard from several unofficial sources that a successful officer candidate is promoted at once to lieutenant (jg) if he is commissioned an ensign after he is 26 years old. I was 26 on 21 Feb 1955 and received my commission on 6 May 1955, through the Officer Candidate Program. Therefore I'm very much interested in finding out whether or not this information is correct.—J. A. Z., ENS, USNR.

• *Sorry, your "unofficial sources" have been giving you the wrong info (as they often do). Perhaps you've been hearing a garbled version of the set-up in the Officer Candidate Program for a very limited number of original appointments in the grade of lieutenant (jg) in the restricted line. However, applicants for these appointments must be between the ages of 27½ and 33½ at the time of appointment and must have a master's degree, doctorate or five years of professional experience in a field considered to be of special value to the Navy.*

The regulations quoted in BuPers Inst. 1412.4B say that no officer in the grade of ensign shall be temporarily promoted until he has completed at least 18 months' service in that grade. Since your date of rank is 6 May 1955, you will not become eligible for temporary appointment to the rank of lieutenant (jg) until 6 Nov 1956. At that time the Chief of Naval Personnel will issue you an individual appointment, which will be delivered subject to the approval of your CO.—ED.

SIR: I understand that members of the OCS classes 1 through 17 were promoted from ensign to lieutenant

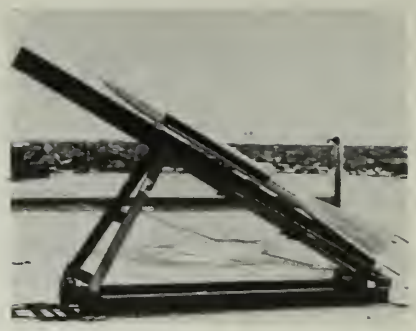


USS NAUTILUS (SS(N)571) gets loaded as crewmen lower torpedoes into their nuclear-powered sub at New London.

Retaking GCT

SIR: I have read in some Navy publication that a man can retake his General Classification Test so that he can become eligible to apply for OCS. Is this correct?—B. N. L., YN3, USN.

• *Yes. The Chief of Naval Personnel authorizes the repetition of any or all the basic battery tests for such purposes as this. To request a retest you should write a letter to the Chief of Naval Personnel, via your CO, stating the reasons for the request and referring to Article C-3204(2) of "BuPers Manual."*—ED.



GOING UP, WAY UP — Navy's new ASP rocket blasts into upper atmosphere to bring back word on conditions above.

(junior grade) in 14 instead of the usual 18 months, presumably because of their four months' service in enlisted status as OCSAs. This was discontinued with class 18.

Can you tell me how this came about originally and why it has been discontinued? I have never been able to locate anything official on it. Scuttlebutt has it that the practice is soon to be reinstated. Is this true? Will it be retroactive to members of Class 18 through the present OCS class?—A. A. C., ENS, USNR.

• *Graduates of Officer Candidate School classes 1 through 17 were not promoted to lieutenant (junior grade) with only 14 months' service in the grade of ensign. Prior to 1 Jan 1951, a minimum of 24 months' service in the grade of ensign was required for promotion to the grade of LTJG. During the transition period when this service in grade requirement was changed from 24 months to 18 months, ensigns with dates of rank from 1 Jan 1951 to 1 July 1951 received 1 Jan 1953 as their dates of rank in the grade of LTJG. Subsequent to 1 Jul 1951, a minimum of 18 months' service in the grade of ensign is required for promotion to the grade of LTJG. No change in this requirement is anticipated.*—ED.

Joining Nurse Corps Reserve

SIR: My wife is a registered nurse. She was trained in Newfoundland and is a member of the California Nurse Association — fully accredited to work in that state. We have no children. How could she go about joining the Navy Nurse Corps Reserve?—H.W.B., LTJG, USN.

• *The recruiting officer at the nearest Navy Recruiting Station will be happy to give your wife the information on applying for this program and will provide her with the necessary forms and instructions.*

At present, applications are being accepted for active and inactive duty appointments in the Nurse Corps, Naval Reserve. Applicants must be registered professional female nurses; citizens of the United States; and between 21 and 39½ years old at the time the application is submitted.—ED.

KPUCs for AHs

SIR: I served on board USS *Repose* (AH 16) from May to September 1952 and USS *Consolation* (AH 15) from September 1952 to March 1954. Each of these ships received the Korean Presidential Unit Citation for service during periods before I was assigned to them.

Recently, I heard that the period for the Korean PUC for one or both of these ships had been extended. If so, what periods of time now govern this award for these two ships?—W.S.W., LCDR, USNR.

• Repose *and* Consolation *were each awarded an individual Korean PUC for their work in the treatment of Republic of Korea battle casualties and their aid to Korean doctors and hospitals.* Repose's *citation was for service from 16 Sep 1950 to 31 Jul 1951 and* Consolation's *covered the period 11 Aug 1950 to 31 Aug 1951.*

In addition, Repose *is included in the Korean Presidential Unit Citation awarded Commander Seventh Fleet for the periods 16 Sep 1950 to 22 Jan 1952; and 20 Jun 1952 to 27 Jul 1953.* Consolation *is also included in the Seventh Fleet citation for the periods 11 Aug 1950 to 24 May 1951; 29 Sep 1951 to 18 Jun 1952; and 26 Sep 1952 to 16 Jun 1953.*

But, a mere listing of dates can never tell the story of what these ships accomplished in the Korean war.

Thousands of U. S. and UN veterans of the Korean fighting owe their lives to the prompt, effective, medical and surgical treatment they received in these floating hospitals. Both ships worked long and hard at their mission of mercy. Repose *earned nine of the 10 battle stars awarded for service in the Korean war and* Consolation *is entitled to all 10 of them.*—ED.

Army Distinguished Unit Emblem

SIR: A member of our unit rates the Army Presidential Citation, a blue ribbon with a gold border. He asked me on which side of the uniform he should wear the ribbon. After much research, I still haven't come up with the answer. Could you give us the information?—R.E.F., GM2, USN.

• *The citation you mention is officially termed the "Distinguished Unit Emblem." In accordance with "Uniform Regulations" (Art. 1511), it is worn on the left breast of uniforms along with all Navy ribbons. The only exception is when large medals are worn (full dress); then it is worn on the right breast.*

In all cases of relative priority, Navy awards take precedence. For instance, a Navyman would wear the Distinguished Unit Emblem following the Presidential Unit Citation and before the Navy Unit Commendation in order of precedence.—ED.

ADBD in Enlistment Contract

SIR: If I understand paragraph 3b of Enclosure (2), BuPers Inst. 1080.14, the active duty base date should appear in Block 25 of the enlistment contract whenever a person has had previous service (National Guard, USAFR, USAR, USMCR, etc.), regardless of whether the service has been active or inactive.

Another YNC on board states that the ADBD should appear as indicated above *only* when the previous service has been active. And a third one contends the ADBD should appear on all enlistment contracts, regardless of whether the man has had previous service.

Who is correct? — E.C.W., YNCA, USN.

• *With the following information you can decide for yourself who's correct: the active duty base date is required to be entered on the shipping articles for all personnel enlisting or reenlisting in the USN, and for persounel enlisting in an active duty status.*

The purpose of the ADBD, of course, is to provide a date to be used in determining an individual's total active Naval service. Anything other than active Naval service is not considered.

For example, the ADBD would be the same as the date of enlistment for an individual enlisting in the USN who has no prior active Naval service. For an individual enlisting or reenlisting, and who has had prior active Naval service, the ADBD would be computed in accordance with instructions contained in BuPers Inst. 1080.14A.—ED.

Reporting from Leave

SIR: Considerable interest has been shown here in your answer to an inquiry on charging a day of leave when a member reports exactly at 0900 (page 17, Jan 1956 ALL HANDS).

This activity's policy in crediting leave rations is in line with your statement that there is no liberal interpretation of Article C-6305(1) of *BuPers Manual;* however, application of the provisions of Article C-5318(3)(b)2 has been doubtful when a member reports exactly at 0900.

I believe clarification of the latter reference—particularly in its relationship to the first article cited—would be beneficial. Recording of on-the-hour reporting time on orders or leave authorizations (rather than exact minute of reporting) is a normal action of human nature and perhaps worthy of consideration when one minute can result in charging a day's leave.

Various articles in *BuPers Manual* use the phrase "report prior to" and "report not later than." Is the intent of these two phrases the same? A difference of opinion exists locally, particularly in the application of the provisions of paragraph 044251-1, *Navy Comptroller Manual,* when leave or liberty hour of reporting is 2400. A recent example: Member ordered to report *not later than 2400* 18 November did not report until 1400 23 November. If the above phrases have different interpretations, applying each phrase to the above example, what day did the member absent himself without authority?—F. R. W., DKC, USNFR.

• *Changes to Articles C-5318(3)(b)2 and C-6305(1) of "BuPers Manual" have already been recommended. These contemplated changes clarify computation instructions to include instances where members return from leave or report to a new duty station at exactly 0900.*

For all practicable purposes there is no difference between the phrase "report prior to" and "report not later than." In the case you cite, the individual would be subject to trial for unauthorized absence for the period 2400 18 November to 1400 23 November. For pay purposes, unauthorized absence would be counted as four days.—ED.

Antietam Awards

SIR: What awards did the personnel serving in USS *Antietam* (CVS 36) earn during the period from September 1951 to February 1952?—R.L.C., LI1, USN.

• *If you served on board* Antietam *during the period to which you refer, you have a right smart number of awards coming to you. You are entitled to wear the Korean Service Medal, United Nations Service Medal, Korean Presidential Unit Citation and National Defense Service Medal.*

During the Korean conflict, Antietam *operated as part of Task Force 77, and in the fall and winter of 1951-52, aircraft from* Antietam *dumped more than 5000 tons of bombs on North Korean targets.*

For your information, Antietam*'s keel was laid in March 1943 and she was commissioned in January 1945. She did not get into action against Japan but did serve in support of the Japanese occupation. She was mothballed in 1949 and was recommissioned in early 1951. After the Korean conflict,* Antietam *spent another short period in mothballs, after which she was again recommissioned and sent to Bayonne, N. J., where she became the first carrier in the U. S. Navy to be fitted with an angled flight deck.*

At present, Antietam *is serving as part of the Atlantic Fleet's Hunter-Killer Force.*—ED.

Navy and Marine Corps Medal

SIR: Recently I have noticed that Navy and Marine Corps Medals have been awarded for "aiding in the rescue" of a person. What are the eligibility requirements for this award? Who can initiate action with respect to recommendation of the award?—R. P. B., LT, USN.

• *Regulations for the award of the Navy and Marine Corps Medal are set forth in the "Navy and Marine Corps Award Manual"* (NavPers 157900), *which reads in part: "That the President is authorized to present a medal to be known as the Navy and Marine Corps Medal to any person, who, while serving in any capacity with the United States Navy or Marine Corps, including the Reserves, shall have, since December 6, 1941, distinguished himself by heroism not involving actual conflict with an enemy. . . ."*

In this connection, the Navy and Marine Corps Medal may be awarded for rescue operations provided the individual has evidenced a degree of heroism sufficient to merit the award.

Recommendations for the award of decorations may be initiated by any officer and should be submitted via official channels to the Secretary of the Navy as promptly as practicable after the performance for which the recommendation is made. A recommendation for the medal must be submitted within three years and awarded within five years of the act or service.—ED.

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Going Up the

When the present service-wide competitive examination system was introduced in 1950, it was not an entirely new procedure. It was in fact, a logical outgrowth of previous experience.

When the U.S. Navy came into being in the 18th Century, the Navy gave a commanding officer a ship and men to operate it. From these men, the commanding officer selected those he thought best suited to fill the various billets in the authorized allowance of petty officers and formed the men into a crew. Once a ship's petty officers were designated, advancements were made only to fill vacancies. Since transfers were comparatively rare, few vacancies occurred. This "advancement" system continued through the Spanish-American War and into the years immediately thereafter.

The present system had its real beginning in 1913 with the issuance of General Order 63. Under this

directive a commanding officer was still authorized to fill vacancies in allowance, but the Navy also began the first formal training program for enlisted personnel. It provided a systematic means whereby all enlisted men and warrant officers could receive the help necessary to fit them for advancement in the technical branches.

From that beginning the advancement system has evolved step by step to the present procedures whereby Navymen are examined on a service-wide basis for advancement to all petty officer pay grades. Commencing in 1916, advancement to CPO were limited and could not be made without approval by the Bureau of Navigation, now the Bureau of Naval Personnel.

In 1923, advancements to CPO and most other petty officer pay grades were made from Bureau of Navigation-controlled eligibility lists. By 1924 the Bureau of Navigation eligibility lists in certain groups and ratings had far exceeded anticipated requirements. To solve this problem, quotas were placed on the number of men who could be recommended and examined for advancement by the Fleets. By 1925, it became necessary to abandon the eligibility system as being unworkable. Advancement to CPO remained under the control of BuNav, but other advancements were made only to fill vacancies.

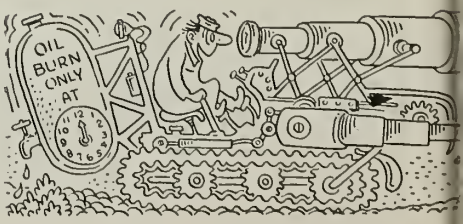
Although examinations had previ-

ously been used for advancement, before 1936 the examinations differed from one type command to another. Commencing in that year the Bureau of Navigation provided a standard examination to be used in testing all men competing for advancement to CPO. This procedure was suspended during World War II, but after that time advancements to CPO were again placed under the service-wide competitive examination.

Advancements to PO1 were made competitive only on a Fleet or Type Command basis. Advancements to PO2 and PO3 were authorized to be made to fill vacancies in allowance of the individual unit command. In 1948 advancements to PO2 and PO3 were included in the Fleet or type quota procedure. It was not until 1950 that competition for advancement to all petty officer

pay grades was placed on a service-wide competitive basis.

The present service-wide competitive examination system was adopted because it was best suited for advancing the best qualified personnel to fill the Navy's petty



Navy Ladder—Then & Now

officer needs. It is the result of years of experience and trial.

Before the service-wide exams, it was entirely possible for an almost unqualified man to be advanced simply because he was the only man available. On the other hand, several excellent men in another unit might be competing for a single vacancy. As a result, the service and individuals suffered through the advancement of individuals who were not necessarily the best qualified. *The present examining procedures eliminate the effect of a person's present duty station on his advancement opportunities.* The man who, during World War II, was advanced rapidly to fill a vacancy in allowance will have less appreciation for the service-wide competitive examination system than would the man who had his advancement delayed several years solely because no vacancy existed in his duty station.

Although the present system is better than its predecessors, it is constantly reviewed and improved. Where results of advancement procedures indicate that a change is in the best interest of the service and individuals, that change is made.

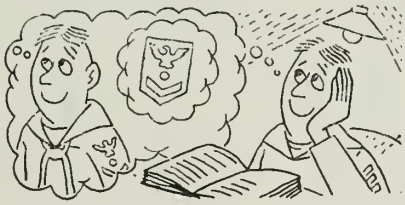
The most frequent dissatisfaction with the present advancement system is expressed in the question, "I passed the last examination but could not be advanced because of quota limitation; why do I have to take the examination again?" There are sound reasons why you should.

In the first place the eligibility list procedure was tried between 1923 and 1925 and found to be unworkable. Secondly, the experience you gained when you earlier passed the examination, plus the fact that a number of Navymen are competing for the first time, make the measurement of all personnel by the same yardstick the fairest method.

For example, a man who passed the examination with a score too low to be advanced, would probably block his chances for advancement if he did not compete in future examinations, since added experience should enable him to make a higher score. *The requirement that you compete again for advancement even though you have previously passed an examination is to your advantage.*

Another complaint voiced against the examination system is that examination results may prevent the advancement of a man in a rating in which a shortage exists in his ship, while authorizing the advancement of personnel in this rating on another ship which has a full allowance in the rating. While the Navy recognizes the undesirability of unequal distribution, the advancement of less well qualified men simply because they are assigned to a ship with a shortage in their particular rate is not a satisfactory situation. The *advancement system* should not be confused with the *distribution system.*

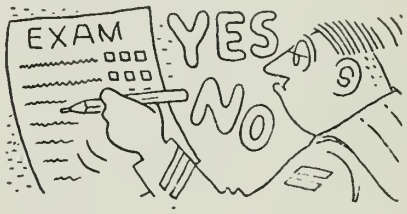
The only alternative to the quota system would be to make the examinations so difficult that only a limited number of men could be expected to pass a particular examination. This would not be fair, because advancements in the crowded



rates would then be based entirely upon the examination score. Credits for time, time in pay grade and for awards won would be meaningless since advancements would be based entirely upon a person's ability to qualify in a written test. For this reason quotas and the requirements for recompeting in the examinations have been adopted as the fairest means available in determining those best qualified to fill the Navy's actual needs in a particular rating.

A third objection voiced against the examination system is that varied service experiences better qualify some persons for examination than others. While this fact is recognized, the examination covers the basic knowledge which every man of a particular rate should possess, regardless of his experience and duty assignments. The subject matter and requirements are widely published so that all may be informed.

The Chief of Naval Personnel has recently taken action to correct the greatest shortcoming of the present advancement procedure: lack of credit for a man's actual day-to-day performance of the tasks required in his rate. At present, the man who is excellent in the performance of his duties gets no more advancement credit than does the man who is barely satisfactory. If all other credits are the same, the man best suited to qualify by a written examination will have a slight advantage even though his day-to-day performance may be far from outstanding.



This inequity has resulted in a planned revision to the advancement procedures by the Chief of Naval Personnel to recognize excellence in performance as an advancement factor. The new evaluation system, placed in effect on 1 July, (see ALL HANDS, July 1956, page 44) will be used as the basis for deriving a performance credit for use in the advancement multiple. Under current plans, the performance factor will first be used in the August 1957 service-wide competitive examinations.

The change in the advancement system to include this factor will be a step forward in the evolution of the system. It will be another step to insure that the Navy's advancement system is the fairest possible means for determining the person best qualified to fill the Navy's needs in a particular rating.

PATHS OF ADVANCEMENT

GENERAL APPRENTICESHIP — E-1, E-2, E-3

PETTY OFFICERS — E-4, E-5, E-6

NAVY BLUE STRIPES

DECK GROUP I
- BM BOATSWAIN'S MATE
- OM QUARTERMASTER
- RD RADARMAN
- SO SONARMAN

ORDNANCE GROUP II
- GM GUNNER'S MATE
- FT FIRE CONTROL TECHNICIAN
- TM TORPEDOMAN'S MATE
- MN MINEM

ELECTRONICS GROUP III
- ET ELECTRONICS TECHNICIAN

PRECISION EQUIPMENT GROUP IV
- IM INSTRUMENTMAN
- OM OPTICALMAN

ADMINISTRATIVE AND CLERICAL GROUP V
- RM RADIOMAN
- YN YEOMAN
- PN PERSONNEL MAN
- TE TELEMAN
- SK STOREKE
- MA MACHINE ACCOUNTANT
- JO JOURNALIST
- CS COMMISSARYMAN
- SH SHIP'S SERV

MISCELLANEOUS GROUP VI
- PI PRINTER (To be combined with LI)
- LI LITHOGRAPHER
- DM DRAFTSMAN
- MU MUSICIAN

RED STRIPES

ENGINEERING AND HULL GROUP VII
- DC DAMAGE CONTROLMAN
- MM MACHINIST'S MATE
- EN ENGINEMAN
- MR MACHINERY
- IC I. C. ELECTRICIAN
- BT BOILERMAN
- ME METALSMITH
- FP PIPE FITTER
- ML MOLDER

LIGHT BLUE STRIPES

CONSTRUCTION GROUP VIII
- BU BUILDER
- SV SURVEYOR
- CD DRIVER
- SW STEELWORKER
- CE CONSTRUCTION ELECTRICIAN'S

GREEN STRIPES

AVIATION GROUP IX
- AD AVIATION MACHINIST'S MATE
- AO AVIATION ORDNANCE MAN
- AL AVIATION ELECTRONICSM (To be merged with
- PR PARACHUTE RIGGER
- AG AEROGRAPHER'S MATE
- AC AIR CONTROLMAN
- AK AVIATION STOREK
- AM AVIATION STRUCTURAL MECHANIC
- TD TRADEVMAN
- AB AVIATION BOATSWAIN'S MATE
- PH PHO

NAVY BLUE STRIPES

MEDICAL GROUP X
- HM HOSPITAL CORPSMAN
- AQ AVIATION FIRE CONTROL TECHN

DENTAL GROUP XI
- DT DENTAL TECHNICIAN

STEWARD GROUP XII
- SD STEWARD

Prepared by ALL HANDS Magazine

OR ENLISTED PERSONNEL

E–7

WARRANT OFFICERS

GOLD BLUE — W–1

GOLD BLUE — W–2

SILVER BLUE — W–3

SILVER BLUE — W–4

COMMISSIONED OFFICER PROGRAMS

ED MISSILEMAN

SBURSING CLERK

T
OMMUNICATIONS TECHNICIAN

EM
ELECTRICIAN'S MATE

(Insignia not approved)
BR
BOILERMAKER

TIES MAN

CM
MECHANIC

IN ELECTRONICS TECHNICIAN
1958)

VIION ELECTRICIAN'S MATE

MATE

TION GUIDED MISSILEMAN

BOATSWAIN (713)
(BM, QM, *GM)

UNDERWATER ORDNANCE TECHNICIAN (733)
(TM, *MN)

MINE WARFARE TECHNICIAN (734)
(MN, *TM)

ELECTRICIAN (754)
(EM, IC)

SHIP REPAIR TECHNICIAN (774)
(DC, FP, ME, ML, PM, *BR)

EQUIPMENT FOREMAN (749)
(CM, CD, UT)

CONSTRUCTION ELECTRICIAN (759)
(CE, *UT)

BUILDING FOREMAN (779)
(BU, SW, DM, SV)

SUPPLY CLERK (798)
(DK, SK, AK, CS, SH, SD)

PHOTOGRAPHER (831)
(PH, *JO)

AVIATION ELECTRONICS TECHNICIAN (761)
(*GF, *AQ, AE, AL/AT, TD)

AVIATION ORDNANCE TECHNICIAN (721)
(AO, GF, AQ)

SURFACE ORDNANCE TECHNICIAN (723)
(GM)

ORDNANCE CONTROL TECHNICIAN (724)
(FT, GS)

MACHINIST (743)
(MM, BT, MR, EN, IM, OM, BR)

COMMUNICATIONS TECHNICIAN (764)
(CT)

ELECTRONICS TECHNICIAN (766)
(ET, RM, TE, *FT, *GS,)
(*EM, *IC, RD, SO, *TD)

SHIP'S CLERK (782)
(LI/PI, JO, PN, YN, MA)

BANDMASTER (785)
(MU)

MEDICAL SERVICE WARRANT (817)
(HM)

DENTAL SERVICE WARRANT (818)
(DT)

AEROGRAPHER (821)
(AG)

AVIATION MAINTENANCE TECHNICIAN (741)
(AD, AM, *AE)

AVIATION OPERATIONS TECHNICIAN (711)
(AB, AC, PR)

*Eligible ratings in path of advancement are listed in parentheses after WO Specialty. *Asterisk indicates this is an alternate path of advancement for the rating so marked. (SM rating's path of advancement to be announced later.)*

★ USNA

The United States Naval Academy is open to unmarried, male, high school graduates between the ages of 17 and 22. Appointments are usually obtained through U. S. Congressmen or by competitive examination in the fleet.

★ NROTC

Applicants for Naval Reserve Officer Training Corps must be unmarried, male high-school graduates between the ages of 17 and 21. Selections for this program leading to a baccalaureate degree as well as a commission are made annually from candidates on active duty as well as personnel on inactive duty, and civilians.

★ NAVCAD

The Naval Aviation Cadet program is designed for unmarried men who have successfully completed two years of college (60 semester hours of unduplicated studies), or have 30 semester hours with a combined GCT–ARI score of 120 and MECH of 58 (USAFI College Level GED test will be accepted in lieu of the 30 semester hours of college). This program is primarily designed for men who do not intend to complete college at a later date. Applicants must be unmarried, between the ages of 18 and 25 years, have good eyesight and no known physical defects.

★ OCS

There are no marital restrictions for Officer Candidate School training. All applicants must hold at least a bachelor's degree. All line, supply and civil engineering applicants must be between the ages of 19 and 27. Other categories must be under 33 years. Physical requirements vary according to the program.

★ INTEGRATION

Male applicants must be at least 19 and under 32½ years of age as of 1 July of the year in which appointment can be made. Women applicants must be at least 21 and under 29½ years of age. Applicants' physical requirements may vary according to the program. Warrant Officers and CPOs' must have 3 years in grade in either of these combined grades or rates. Four years in rate are required below CPO.

★ AOC

Applicants for the Aviation Officer Candidate program must be male college graduates between the ages of 19 and 26 with good eyesight and no known physical defects. There are no marital restrictions.

★ LDO

Those who have not reached their 35th birthday as of 1 July of the year in which appointment can be made are eligible for appointment as Limited Duty Officer. In some cases the age limit is raised to 38. Male enlisted POIs and above having served in rate for 1 year are eligible; must have completed 10 years of active service and be high school graduates or service-accepted equivalent.

Path of Advancement to Limited Duty Officer

Outstanding Navymen have an excellent chance for advancement under the Navy's Limited Duty Officer program. The number of LDO commissions awarded each year is not large, but top-notch men who meet the eligibility requirements listed in BuPers Inst. 1120.-18C have a definite opportunity to become officers in their chosen fields.

If you are interested in becoming an LDO, it's a wise plan to ask your personnel officer to determine your eligibility, and then to get an early start on gathering the information needed to complete the formal application papers.

Below are listed the LDO titles and classifications, the enlisted ratings and warrant officer categories eligible for each, and the technical fields covered by each LDO classification.

Successful applicants are ordered to the U. S. Naval Schools Command, Newport, R. I., for 11 weeks of officer indoctrination training, and are commissioned upon completing the first week of their training.

Line-General

1	2		3	4
ENLISTED RATING	WARRANT OFFICER CATEGORY		TECHNICAL FIELD	LDO TITLE AND CLASSIFICATION
BM QM GM*	713	Boatswain	Seamanship and ship's operation	Deck—1700
GM	723	Surface Ordnance Technician	Operation, maintenance and repair of offensive and defensive armament	Ordance—1710
FC/FT GS	724	Ordnance Control Technician		
MN TM**	734	Mine Warfare Technician		
TM MN**	733	Underwater Ordnance Technician		
PN YN MA PI/LI JO	782	Ship's Clerk	Naval administration and personnel management	Administration—1720
CT	764	Communications Technician (Cryptographic Services Branch)		
	764	Communications Technician (Analysis Branch)		
MM BT MR EN OM IM	743	Machinist	Operation, maintenance and repair of propulsion and auxiliary equipment	Engineering—1730
EM* IC*	*766	Electronics Technician		
DC FP ME ML PM	774	Ship Repair Technician	Maintenance and repair of a vessel's hull and related equipment	Hull—1740
RD SO RM TE ET FC/FT* GS* TD*	766	Electronics Technician	Maintenance and repair of electrical and electronic equipment	Electronics—1750
EM IC	754	Electrician		
CT	764	Communications Technician (Maintenance Branch)		
	764	Communications Technician (Collection Branch)		

Line-Aviation

AB AC PR	711	Aviation Operations Technician	Operational control of aircraft	Aviation Operations—1810
AO GF AQ	721	Aviation Ordnance Technician	Operation, maintenance and repair of aviation offensive and defensive armament	Aviation Ordnance—1820
AD AM AE*	741	Aviation Maintenance Technician	Maintenance and repair of aircraft, power plants, structures and accessories	Aviation Maintenance—1830
AE AL/AT TD GF* AQ*	761	Aviation Electronics Technician	Maintenance and repair of aviation electrical and electronic equipment	Aviation Electronics—1840
AG	821	Aerographer	Aerology	Aerology—1850

Supply Corps

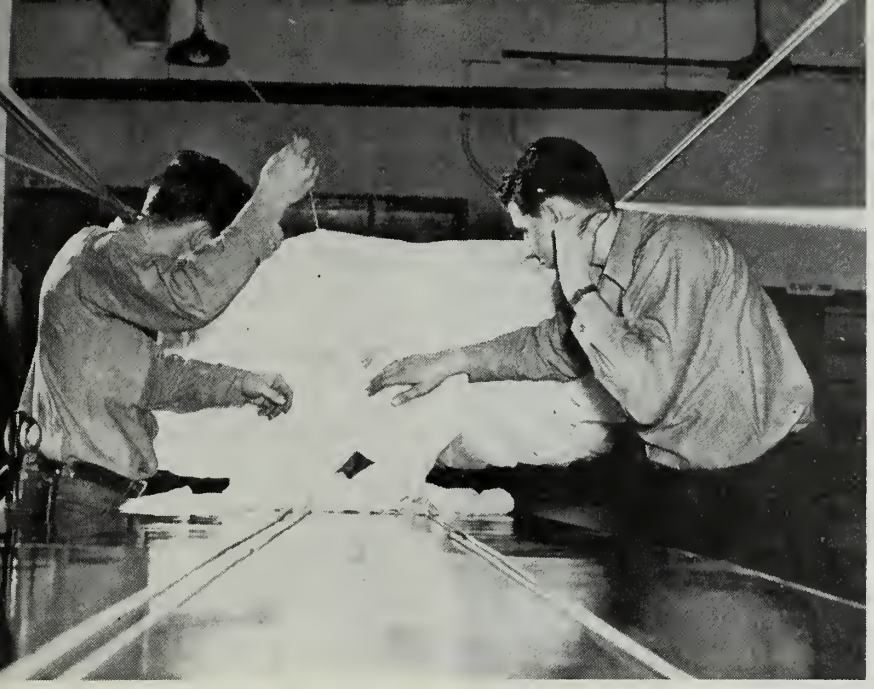
DK SK AK CS SH SD	798	Supply Clerk	Supply, disbursing and commissary	Supply—3700

Civil Engineer Corps

CM CD UT	749	Equipment Foreman	Construction, maintenance and repair of shore installations and operation of utilities	Civil Engineer Corps—5700
CE UT**	759	Construction Electrician		
DM SV BU SW	779	Building Foreman		

* Alternate path for enlisted personnel.

** Alternate path for enlisted personnel to warrant category only



Chute Packers

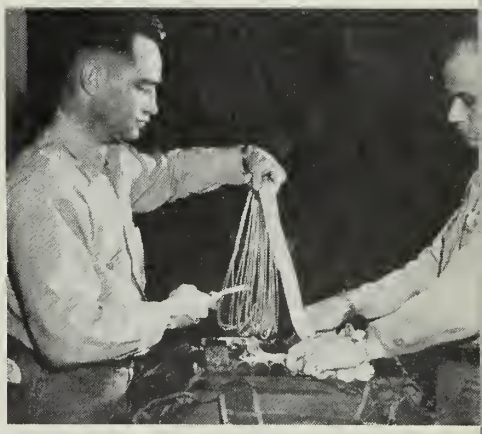
When a Navy flyer hits the silk his life literally hangs by a thread—of nylon and Dacron that have been carefully packed and inspected by a Navyman in an unglamorous but all important rating of Parachute Rigger.

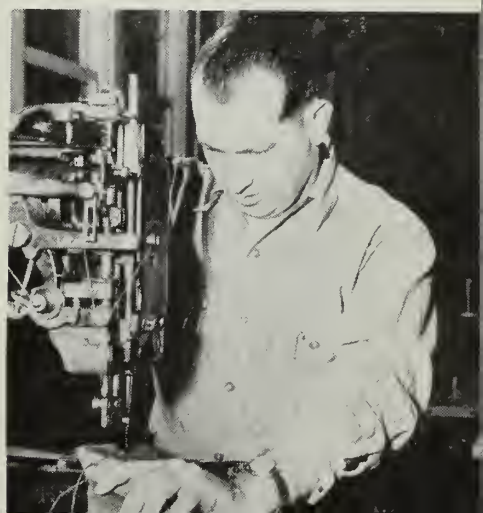
Take, for example, the "chute packers" working behind the scene in the loft at NAS Atsugi. They inspect about 700 chutes per month, since each chute must be unpacked and packed every 60 days.

Responsibility is a watchword among riggers. They know that the day may come when a life may rest solely in their hands. Their handiwork and reputation must be such that in an emergency a pilot will jump without hesitation, feeling confident that his chute will open. PRs have confidence in their ability, for before they graduate from their school at Lakehurst each student is required to make a jump with a chute he has packed.

In addition to parachutes, riggers are responsible for all survival gear aboard Navy aircraft. Each month at Atsugi the chute packers inflate 300 life rafts to check for leakage and make certain that all other survival items are ready for emergency use.

Top: Riggers "whip" shroud lines of a parachute prior to packing. *Top right:* The 100 yards of nylon are folded for stowage into the chute pack. *Center:* Shroud lines are carefully placed into pack. *Lower right:* Large sewing machine is used by PR to repair torn harness. *Bottom:* Chute packers repack life raft after inspection.





★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

USS PRAIRIE STATE (IX 15), shown here in early days of her career as *USS Illinois* of the Great White Fleet, has reached the end of her sea service.

Lone Drone Ship

The only ship of her type operating with the U. S. Atlantic Fleet, the small drone-launching USS *YV2*, is helping to steady the trigger finger of the gunners of larger ships. Accuracy in knocking enemy planes out of the sky is now becoming more of a certainty.

A converted medium landing ship, *YV2* has become a prime factor in the operation of pilotless aircraft. Drones which are launched by *YV2* are directed to an assigned target by a control point on the bow. Through manipulation of instruments these drones are made to dive, bank, climb and cavort about the firing ship in the attacking patterns of enemy aircraft.

Having been of benefit to the Fleet during the *Springboard* maneuvers of 1955, *YV2* was ordered to the Caribbean and participated again this year in *Springboard 1956*. In between the various maneuvers, *YV2* is called upon by recommissioned ships and new ships, on shakedown cruises, to help with firing practice runs.

DEW Line Extended

The Nation's DEW Line which originally draped across the Arctic is now extended to the mid-Pacific Ocean area as the result of two new airborne early warning squadrons being commissioned in Hawaii.

They are Airborne Early Warning Squadron VW-12 and Airborne Early Warning Maintenance Squadron (Matron) Two, both of which are based at NAS Barber's Point.

YESTERDAY'S NAVY

On 3 Aug 1886 construction of USS Maine was authorized. On 9 Aug 1815 Tripoli agreed to end its raids on American shipping after a show of force by Commodore Stephen Decatur's squadron. On 15 Aug 1944 an Allied naval force landed U.S. and French troops in southern France. On 19 Aug 1812 USS Constitution defeated HMS Guerriere in one of the most famous frigate duels of U.S. naval history. On 31 Aug 1842 Congress established the Bureaus of Yards and Docks; Construction, Equipment and Recruiting; Provisions and Clothing; Ordnance and Hydrography; and Medicine and Surgery.

News of Navy Ships

Guided missile cruisers and the big flattops are in an entirely different Navy, but remember Teddy Roosevelt's "Great White Fleet" which made its famed circuit of the globe back in 1907-1909? USS ***Prairie State*** (IX 15), last existing member of that great fleet, has met her doom—sold for scrap to the tune of $278,000.

Launched in 1898 and commissioned in 1901 as USS ***Illinois*** (Coast Battleship No. 7), she was one of the last ships built with 13-inch guns. As a result of the 1924 Limitation of Arms conference in Washington, *Illinois* was disarmed and converted into the "largest and finest floating armory in the Navy."

In the same year her name was changed to *Prairie State* so that the name *Illinois* could be assigned to a newer battleship. *Prairie State*, gallant old dreadnaught, never fired a gun in battle; yet she served her country right on through World War II, mostly as a training station. She was towed to the New York Naval Shipyard from New York's Pier 73 last March to await final disposition.

As for today's modern Navy:

- USS ***Canberra*** (CAG 2), second of the Navy's guided missile cruisers, has been commissioned at Philadelphia. The *Baltimore*-class heavy cruiser will join USS ***Boston*** (CAG 1) as a member of the Atlantic Fleet, and both will have Norfolk as a home port.
- USS ***Pittsburgh*** (CA 72) has been mothballed for the second time in her "brief but brilliant" career. She's now in the Bremerton Group, Pacific Reserve Fleet.
- The "Fighting Saint"—USS ***Saint Paul*** (CA 73)—is back in Puget Sound Naval Shipyard after an absence of some two years. This time she's getting a routine upkeep and overhaul period.
- "Fifty-Niner" ***Forrestal*** (she's CVA 59, naturally) has entered the Norfolk Naval Shipyard for a bit of working over—including engraving of the ship's bell and the installation of a batch of television sets.
- Farther south, USS ***Franklin D. Roosevelt*** (CVA 42) treated herself

to a South American cruise en route to her new home port at Mayport, Fla. FDR was recently recommissioned after a modernization program costing nearly $48 million.

• And on the West Coast, USS ***Hancock*** (CVA 19) has put into San Francisco Naval Shipyard for an angled-deck-steam catapult-mirror-signal landing system modernization.

• In the deep sea Navy, USS ***Sailfish*** (SSR 572) has been placed in commission at Portsmouth, N. H., Naval Shipyard; up at Groton, Conn., a new USS ***Darter*** (SS 576) has gone down the ways. Meanwhile, the Philadelphia has overhauled USS ***Muskallunge*** (SS 262) and USS ***Paddle*** (SS 263) in preparation for their loan to Brazil under terms of the Mutual Defense Assistance Program.

Other events of interest to ship-loving sailormen:

• One destroyer of the *Forrest Sherman* class has been commissioned and two others launched. In Boston, former CNO Admiral Robert B. Carney, USN (Ret.), told the personnel of USS ***John Paul Jones*** (DD 932), "I am still a destroyer sailor at heart and an envious one," shortly before the colors were raised on the stern of the new DD. USS ***Davis*** (DD 937) has been launched at Quincy, Mass., while USS ***Manley*** (DD 940) has gone down the ways at Bath, Me. Like their sisters, *Davis* and *Manley* incorporate aluminum superstructures above the main deck, distribution of gun batteries with more fire power aft than forward, and the latest in habitability improvements.

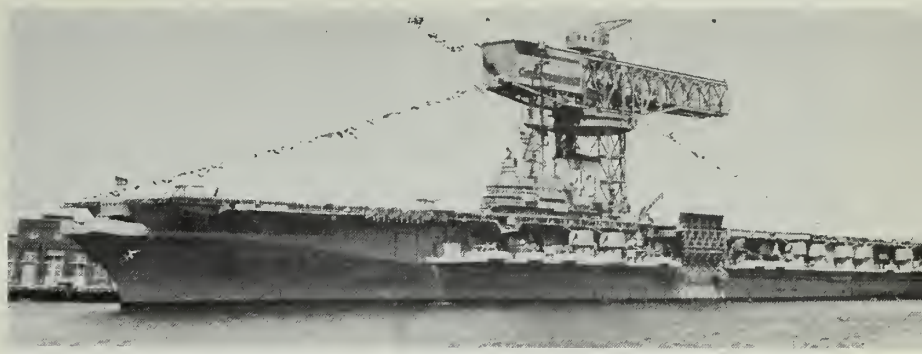
• USS ***Price*** (DER 332) has received an aluminum tripod mast as part of her transformation to the DER classification. In the conversion *Price's* entire top structure is being changed from steel to aluminum.

• USS ***Diphda*** (AKA 59), attack cargo ship "first class", has been returned to the Reserve Fleet at San Diego. *Diphda* was commissioned in 1944 and participated in Lingayen Gulf landings in the Philippines and in the Okinawa invasion of World War II. She also took part in the Hungnam evacuation in Korea.

• USS ***Rolette*** (AKA 99), an attack cargo ship, has been decommissioned at Mare Island Naval Shipyard.

• USS ***Sharps*** (AKL 10) has been turned over to the Republic of Korea Navy in ceremonies at Puget Sound Naval Shipyard, along with a pair of LSMs.

Finally USS ***Mauna Kea*** (AE 22), second ship of the *Suribachi* class of ammunition carriers has been launched in Baltimore. Both ships have an over-all length of 512 feet and beam of 72 feet. They have a light displacement of 7500 tons, cargo capacity of 7500 tons and are steam-turbine propelled, with one screw. Complement consists of 20 officers and 296 enlisted men.



KING-SIZE RADAR tower for CVA? — or so it seems. However, full dressed USS *Coral Sea* (CVA 43) is merely moored by yard crane for an open house.

Little Beavers

Destroyer Squadron 23—the famed "Little Beaver" squadron of World War II—is back on duty in the Pacific for the first time since being inactivated at the end of World War II. The squadron, then composed of DesDivs 45 and 46, fought its way to fame while under command of the present Chief of Naval Operations, ADM A. A. ("Thirty-One Knot") Burke, USN.

Composing today's "Little Beavers" (DesRon 23) are DesDiv 231—USS *Stephen Potter* (DD 538), *Picking* (DD 685), *Irwin* (DD 794) and *Preston* (DD 795)—all recently reassigned to PacFlt from the Atlantic; and DesDiv 232, made up of USS *Maddox* (DD 731), *Brush* (DD 745), *Samuel N. Moore* (DD 747) and *Herbert J. Thomas* (DDR 833).

P. R. Scouts Get Boats

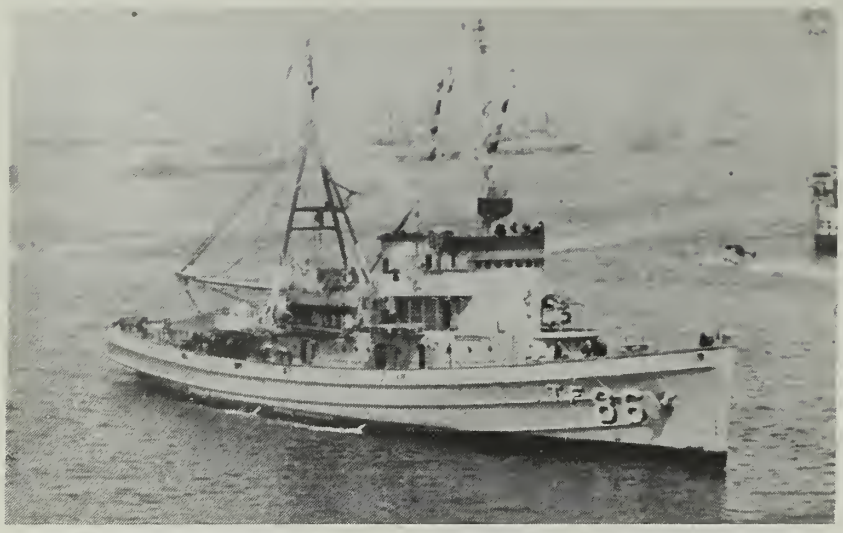
In line with the Navy's policy of cooperating with Boy Scouts, naval units in Norfolk, Va., presented four small boats to the Puerto Rico Council of Boy Scouts.

The boats, transported to San Juan aboard the MSTS transport USNS *Pvt. William H. Thomas,* were accepted upon their arrival by seven San Juan scouts and their scoutmaster, who represented all scouts of the island.

The former Navy boats are now available for use by all Puerto Rican scouts at their camp at Guajataca, approximately 60 miles from San Juan.

Since 1946, the Navy has presented more than 1000 boats of various types to the Boy Scouts of America.

SIXTH FLEET SHIPS visit Barcelona. (L. to R.) *USS Cassin Young* (DD 793) *Albany* (CA 123), *Newport News* (CAA 148) *Mercury* (AKS 20), *Mauna Loa* (AE 8).



USS MATACO (ATF 86), little ship with a lot of pull, enters San Diego harbor after more than three years of continuous overseas duty in Pacific waters.

Mataco Chalks Up Mileage

Unheralded and almost unnoticed, USS *Mataco* (ATF-86) cruised into San Diego Bay not long ago, with a 59-foot "Homecoming Pennant" (one foot for each man aboard) streaming from her 'pig-stick' mast. After more than three years of continuous overseas duty, the 204-foot fleet tug had returned to the United States.

In March of 1953 *Mataco* made a brief routine stop at San Diego while en route to Panama with a floating drydock in tow. Since then she has logged over 50,000 nautical miles operating in the Western Pacific.

Officially, the ship's homeport is Pearl Harbor, but the hard-working tug isn't home much. Lieutenant Commander John R. Ives, USN, *Mataco's* skipper for the past 24 months, says, "I can count 17 months of operations away from Pearl."

An experienced small-ship sailor, LCDR Ives earned his commission from the enlisted ranks. During World War II he commanded an LSM, and he has been commanding officer of an escort submarine chaser. But his service on board *Mataco* has provided him with some of the most memorable experiences of his 19-year career.

Primarily, the fleet tug is designed specifically for towing, salvage work and fire-fighting. Not particularly glamorous tasks, but as LCDR Ives puts it, "The work often gets interesting—to say the least. This tour we rescued just about everything but a submarine. We even rescued an airplane."

The skipper speaks with pride of *Mataco* and her crew as he relates the story of freeing a seaplane which had grounded on a beach southwest of Nagasaki, Japan. There was nothing in the book about marooned seaplanes, but within six hours the ingenuity and skill of the tug's crew enabled the plane to take off undamaged. "Our men took great delight in doing anything that was asked of them—and in a hurry," LCDR Ives says. "Yet, in the past two years we have never lost a minute because of injuries."

Another time the 1650-ton ship rescued a 22,000-ton tanker which had lost all propulsion and was drifting into shoal waters off southern Japan. The tough little tug towed the crippled ship almost 500 miles "uphill" through rough seas to port.

"That's our main weapon," LCDR Ives says, pointing to the huge automatic towing machine. "*Mataco* can take the largest ship in existence in tow under normal conditions—with the possible exception of *Forrestal*, and I'm sure two tugs in tandem could handle her."

Even under abnormal conditions, fleet tugs perform man-sized tasks. LCDR Ives tells of towing a 235-foot vessel to Korea through the fringes of a typhoon and of a trip up from Hong Kong during a gale, when "the ship rolled 51 degrees for two days, and there were more footprints on the overhead than on the deck."

"When we're not doing anything," LCDR Ives comments, "the ship tows targets for fleet gunnery exercises. During this cruise 56 ships fired on targets towed by *Mataco*." Also, because of her deep draft (17 feet), the tug often serves as a target for submarine torpedo firing exercises. On one occasion a dummy torpedo tore a hole in *Mataco's* fuel tanks.

Mataco's duties have taken her all

UNDERSEA GAS STATION, *USS Guavina* (AGSS 362) surfaces to fuel P5M-2 *Marlin* during anti-sub exercises.

over the Pacific—Subic Bay, Manila, Hong Kong, Chichi Jima, and ports throughout Japan, but the milk run is the 1100-mile voyage between Pearl Harbor and Midway Island. Once it took a week to make this trip towing 2000 tons of gravel in barges. "Sometimes I thought we were going backwards," LCDR Ives said, and then pointed out that the captain of a seagoing tug spends more time on his bridge looking back to where the ship has been, rather than to where it's going. Bulky tows on the end of 1600 feet of two-inch wire present unusual navigational problems and demand constant vigil.

Time Savers

From time to time, in very rare and isolated cases, Navymen have been known to try and avoid work. Usually, such efforts are frowned upon, but C. V. Beck, AOC, USN, and L. A. Singley, AO1, USN, have found a way to avoid work while doing the Navy a favor at the same time.

While their *Cougar* jet squadron, VF-91, was deployed to Clark Air Force Base in the Philippines, the two ordnancemen decided it was taking them too many hours to de-belt the hundreds of rounds of 20mm ammunition left over after a day's strafing and gunnery by their pilots. So they put their heads together and invented a gadget to do the job in a fraction of the time it took by hand.

Dubbed the Portable De-linking Device, the gadget is actually a salvaged 20mm feed mechanism with a few alterations which make it into a de-linker or de-belter. The handy-dandy gizmo can be bolted to a board or weapons carrier, or clamped in a vice. As belted rounds are fed into it by hand the star wheels of the feed mechanism are turned by an attached crank and the ammunition comes out, de-belted and unscathed, at the bottom.

The de-belter is easily built, provided you have an old 20mm feed mechanism lying around. Moreover, it is simple to operate, portable, compact, light and readily adaptable to electric drive. It can be mounted virtually anywhere, and most important of all, it doesn't damage the ammunition. The gadget can be used to its best advantage during large-scale gunnery operations or when large quantities of "bad lot" belted ammo are discovered.

If you'd like a genuine Portable De-linking Device of your very own, just follow these simple directions:

- Remove the operating lever assembly, cotter pin and pivot pin from the feed mechanism.
- Take off the link assemblies, cartridge holding pawl, spring, dog, front and rear cartridge holding cams and springs in that order.
- Mill the mouth of the feed mechanism completely off to allow the de-linked rounds to drop.
- By reinstalling the operating lever assembly and attaching a push rod, connected to an electric drive of your own design, you can make the whole device operate automatically at the flick of a switch.

Coast-to-Coast Transceiver Network Gets Under Way

At 1203, 2 Jul 1956, VADM Holloway, the Chief of Naval Personnel, pressed a control panel button on a data transceiver set in the Enlisted Distribution Branch of the Bureau. A prepunched IBM card then raced across the set.

At the same instant, 2285 miles away at North Island, San Diego, an exact duplicate of the punch card began racing across the face of another data transceiver, recording the information that had been punched on a card at Washington.

The card in this case was an "enlisted availability" — the first Washington-to-West Coast one so made. On hand to read the card was Vice Admiral Alfred M. Pride, USN, Commander Air Force, U.S. Pacific Fleet—who saw that Edwin Childs, Jr., AN, USN, now on duty at NAS Hutchinson, Kansas, was being made available for assignment in AirPac.

The pressing of a button at the Bureau marked another step in the Navy's expanding transceiver network. San Francisco was tied in with Washington at the same instant. Norfolk-Washington hook-up was made last September.

It is the individual man who benefits most from this new system. Through punch cards and transceivers much more information important to a careful decision on his next assignment can be recorded, sent and processed than through older means. Detailed information normally cannot be indicated on such traditional "transfer directive" forms as speed letters, teletype or radio messages.

Assignment of personnel has always been a vital area in enlisted career planning. More information on this technique is contained in the 5 Jun 1956 BuPers Inst. 1306.58. Its purpose is to establish procedures relating to transmission of personal data via data transceivers and the use of punch cards in transfer of enlisted.

COAST-TO-COAST card punch — VADM J. L. Holloway signals opening of BuPers West Coast transceiver network. Standing are: J. P. Szeliga, MAI; CAPT. R. W. Curtis; RADM M. E. Arnold, and RADM E. W. Grenfell. Naval officers stationed in Washington, D. C., area now wear civvies on the job.

Tests on *Forrestal*

USS *Forrestal* (CVA 59), "hostess with the mostest" so far as naval aviators are concerned, has welcomed aboard three of the Navy's newest jet aircraft. She is a testing ground for the supersonic fighter F8U-1 *Crusader;* the first Navy all-jet heavy attack bomber, the A3D-1 *Skywarrior;* and the F11F-1 *Tiger,* another new supersonic fighter. All were put through their first catapult launchings and arrested landings from the deck of *Forrestal,* operating off the coast of Virginia.

The planes were undergoing the first phases of carrier suitability trials, designed to test their performance under actual operating conditions at sea. *Skywarrior* with a gross weight of 70,000 pounds and a wing span of 72½ feet, is the heaviest and most powerful aircraft that has ever flown from the deck of a carrier. Her two turbo-jet engines make her capable of speeds in the 600-700 mph range, and she has a service ceiling of over 40,000 feet on combat missions.

F8U *Crusader* is one of the world's first aircraft to operate in an entirely new speed range, well above the supersonic. First flown a year ago, she is powered by a single turbo-jet engine with afterburner. The third jet, F11F *Tiger,* also has a single jet engine with afterburner.

The tests aboard *Forrestal* included catapult launchings at various gross weights, take-off speeds and the use of various pilot techniques. Arrested landings were also made with various weights, speeds and landing attitudes.

Second *Seamaster*

Flight tests on the second XP6M-1 *Seamaster* are underway.

The swept-wing minelaying and photo-reconnaissance aircraft, which has been painted with the new Navy grey-and-white colors, was airborne on its first flight for an hour and 25 minutes.

The minelaying and navigation systems originally built into the second airplane have also been removed temporarily in order to carry out with the one aircraft what it had been planned to accomplish with both seaplanes under two separate flight test programs.

Production models of the *Seamaster* will carry a crew of four including pilot, co-pilot, navigator-minelayer, radio and armament defense operator.

First Flight for *Skylancer*

The new F5D *Skylancer,* an all-weather, supersonic, carrier-based jet fighter which features thin, bat-shaped wings and slender fuselage, has made its first flight.

Designed for catapult take-off from carriers and rapid climb to high altitudes to intercept and destroy enemy aircraft, the *Skylancer* exceeded the speed of sound on its maiden flight.

The F5D's wing planform, general appearance, and arrangement are the same as the F4D. However, its greatly increased speed, range, and performance have made it a multi-purpose airplane. It can be used as a general day fighter and all-weather interceptor as well as a fixed-point interceptor.

Skylancer is powered by an improved J-57 turbojet engine with afterburner. It also has electronically controlled auto pilot and fire-control systems.

Another distinguishing feature is its V-shaped cockpit enclosure. This type of cockpit accounts for a substantial increase in speed over the more conventional flat-faced windshield.

The F5D is capable of carrying guns, rockets, and missiles, and is designed to operate from existing aircraft carriers as well as the new *Forrestal* class.

Seeing Eye Squadron

With the largest naval air station photo laboratory in the Far East, men of Navy Utility Squadron Five (VU-5) prove nearly every day the truth of that weary old saw: "One picture is worth ten thousand words." On such a basis, VU-5 is one of the most prolific word-mongers extant.

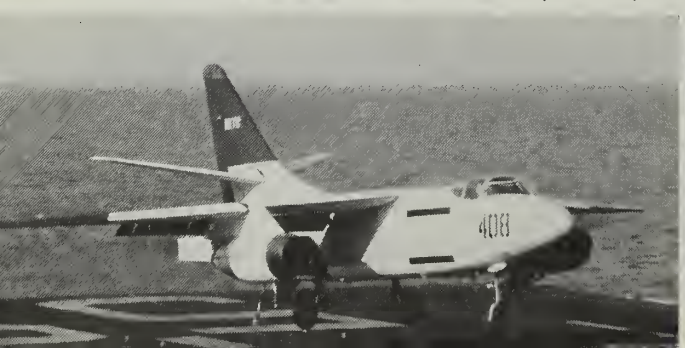
Its work includes the aerial coverage of military installations, photo-mapping, aerial photos of aircraft in flight, pictures of crash scenes and processing some eight miles of gun camera movie film each week.

One of VU-5's more important jobs is furnishing aerial photos of surface gunnery and torpedo practices of ships of the Seventh Fleet.

The procedure for obtaining these photos is not simple. First, a date and place of rendezvous for the target practice is decided upon by the Fleet Training Group at Yokosuka. The VU-5 Operations Division schedules a suitable aircraft for the flight. The Photo Lab is notified and two qualified photographers are assigned.

The proper aerial camera is checked and loaded. Data board, safety belt and flight clothing are checked out and the photographers report to the plane, where the rear

LATEST JETS receive tests on *USS Forrestal* (CVA 59). *Above:* F8U *Crusader;* Left: *A3D Skywarrior; Right:* F11F-*Tiger.*



door is removed and electric power for the camera is checked. Mae West and parachute harness are slipped on and they're ready to go.

After take-off, the pilot calls the scheduled firing ship and informs it that the photo plane is proceeding to the assigned area. As soon as the visual contact is made with the target towing vessel, the plane begins to circle over the target. One photographer fastens on the safety belt and positions himself at the open door with the 65-pound aerial camera. The other stands by to record each picture taken, each run and salvo of the firing ship and the altitude of the photo plane.

When firing is completed, the photo plane returns to Atsugi. The photographers rush the film to the VU-5 lab for processing. Within a short time the finished films and prints are on their way to the Fleet Camera Party at Yokosuka for plotting and evaluation.

Using these photos, the ship's gunnery men can determine any deflections or range error during gunnery practice and correct their gun calibrations.

Not all the jobs of VU-5 are as dramatic as aerial photo coverage. But whether the photo mission involves mapping or merely a shot of an aircraft status board in the maintenance office, all depend on the training and experience of USN photographers. K. G. Riley, PHC, USN.

Flying Chief is One of Navy's Three Hundred

Twenty-four hours a day for one year, one month and 10 days! That's how long Clanton W. Clampitt, ADC (AP) USN, would be in the air if he could pack all his flying time into a single flight.

Chief Clampitt is one of the few enlisted pilots still in the Navy. When the program was discontinued in 1945 there were about 800 of them. Now, through attrition, appointment and reappointment to former commissioned grade, the number has dwindled to around 300.

But the chief is still going strong after 30 years of service—20 of them in aviation. He has a total of 9721 hours in everything from old time biplanes to modern helicopters and jets since he first entered pilot training back in 1936. In World War II he flew 16 combat missions in the Pacific and was awarded the Distinguished Flying Cross and two Air Medals. Now, as space satellites herald the dawn of interplanetary travel, he's just begun a brand new four-year hitch.

For eight years he was a commissioned officer, but in 1950 when he had to choose between being grounded as a lieutenant commander or flying as a CPO, he willingly reverted to his present enlisted status. Today, as a member of VR-32 at NAS North Island (San Diego), Calif., he is able to keep up with the latest in aviation while ferrying all types of aircraft.

Not long ago, Chief Clampitt completed helicopter training, and some day, when the Navy starts teaching men to fly space ships, he'll probably be one of the first to apply for the course.

Hurricane-Shooting Rockets

Navy destroyers and aircraft are shooting rockets at hurricanes this summer. The intent is to photograph them, not chase them away.

By means of rockets, an entire hurricane cloud system can be photographed from an altitude of approximately 100 miles.

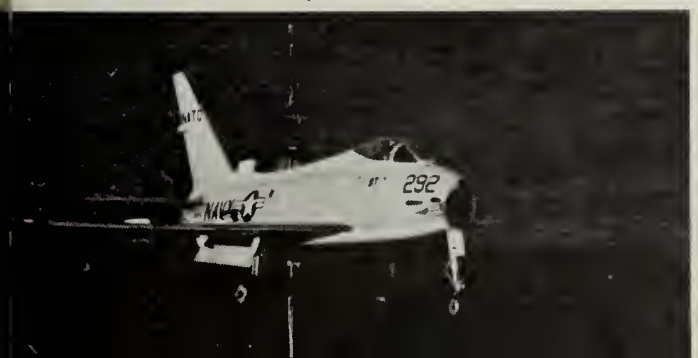
Recovery techniques of the nose cone containing the photographic equipment were tested in May. A P4Y-2 aircraft dropped an inert rocket nose cone at an altitude of 18,000 feet and 100 miles off the coast of Wallops Islands, Va. It parachuted to the sea surface, and floated until recovered. Two destroyers, USS *Wren* (DD 568) and USS *Ross* (DD 563) were the recovery ships.

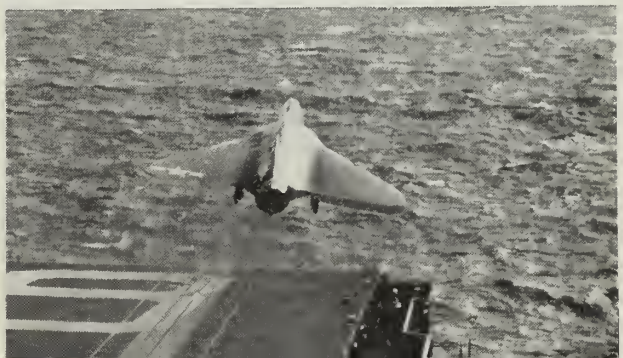
While the nose cone was aloft, *Wren*, 23 miles distant, picked up the signals emitted and later moved in through rough seas to recover the experimental nose cones. *Ross* served as a guard ship for the drop but did not assist in locating and recovering the nose cone.

During the East Coast hurricane season this summer, four two-stage rockets will be launched at Wallops Island. The rockets will be equipped with cameras, air and seaborne location and recovery devices. Floating rocket nose cones containing the cameras will be disengaged from the rockets and parachuted to the sea surface. Ships from Destroyer Flotilla Four will recover the cameras.

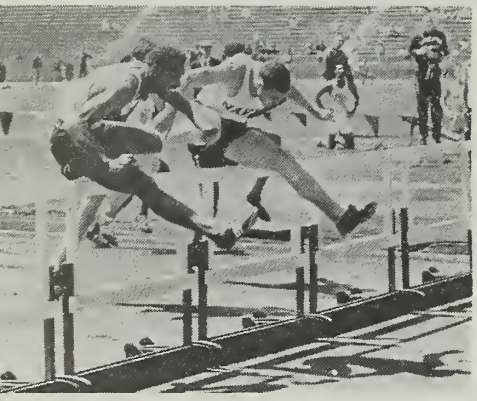
A two-stage rocket, the *Nike-Cajun*, will carry the cameras, parachutes, and locating and recovery instruments to approximately 100 miles altitude. Pictures that are taken from this altitude will have a radius of approximately 800 miles.

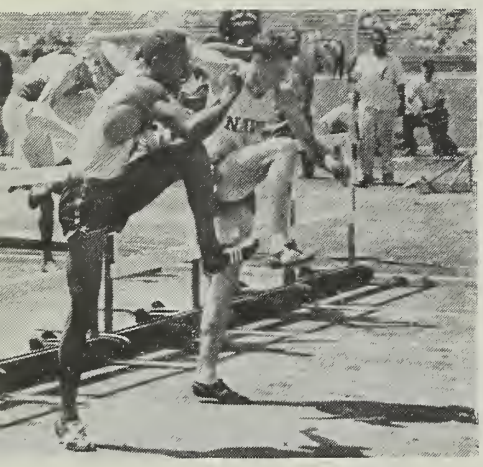
JETTING IN — FJ-4 *Fury* lands on *Forrestal's large deck*. A4D *Skyray* blasts skyward off the big carrier's bow.





Headed for Olympics





DEAD HEAT — Camera records the neck and neck 110-meter high hurdle contest between Davis and Calhoun.

A fast, high-striding lieutenant (junior grade) and an embryo seaman still in recruit training led the Navy's entries in the 1956 American Olympic Track and Field trials held in Los Angeles Memorial Coliseum. A total of 11 Navy athletes had qualified for competition in the trials. As it happened, two of them won places on the American team and one was selected as an alternate.

Lieutenant (junior grade) Jack Davis, USNR, one of the finest athletes ever to don Navy silks, came through to win the 110-meter high hurdles in a dead heat with Lee Calhoun of North Carolina College. Davis had been a heavy favorite to win the number one position.

Davis, who a week previously had finally caught and passed the world's record in this event, got off to a slow start in the preliminary heat, but came on to win easily in the time of 13.9 seconds. An hour and 20 minutes later, in the finals, Davis was matched stride-for-stride by Calhoun.

As in the qualifying heat, Davis got off to a relatively slow start and then tipped the eighth hurdle as he registered a 13.8 seconds time in the finals. You'll note from the photos at left that it was the closest race of the entire trials.

For more than an hour after the race, Olympic officials studied the pictures and found that they couldn't separate the two speedsters and declared the race a dead heat. Both of these hurdlers, along with Duke's Joel Shankle, were selected to the team.

Milt Campbell, SA, USN, 1955 AAU and National Collegiate high hurdles champion, placed fourth in the high hurdles and was selected as an alternate. Campbell was timed at 14.2 seconds, a tenth of a second behind Shankle.

By the margin of an inch, Benny Garcia, SR, USN, won a seat on the plane going to Austrailia for the Olympics this fall. Competing in the javelin throw, Garcia won third place with a toss of 234 feet 3½ inches. The young seaman beat out Frank "Bud" Held, holder of the currently accepted world record of 268 feet 2½ inches. The best Held could do in the track and field trials was 234 feet 2½ inches.

Garcia, a recent graduate of the University of Arizona, tossed the javelin 242 feet 1½ inches last April to become rated among the top three javelin competitors in the nation. The veteran Cy Young from San Francisco won the Olympic Trials in this event with a toss of 244 feet and Phil Conley, of Cal Tech, placed second with a distance of 235 feet.

Ensign Bob Kimball, USNR, was the other Navy competitor in the javelin contest but failed to place with his best toss of 198 feet. The former Stanford ace had been encountering trouble in his favorite event and had dropped more than 30 feet from his peak form in mid-season. Last year, Kimball won the PCC championship with a toss of 240 feet.

In the high-jump event, Mark Smith, AT3, USN, and Lieutenant (junior grade) Barney Dyer, USNR, carried the Navy banners but lost out to Charles Dumas of Compton College. Dumas set a new world's record with a tremendous leap of 7 feet ⅝ inch. Both Smith and Dwyer have cleared the crossbar at 6 feet 8 inches this year, but neither could do any better than 6 feet 4½ inches in the trials.

One of the biggest disappointments to the Navy track followers

INCHED IN—Benny Garcia, SR, USN, posing with Phil Conley and Cy Young, won berth by an inch margin.

was the performance of Joe Tyler, SN, USN.

Tyler made the unfortunate decision to wear a new pair of shoes when he ran the 10,000-meter race in the AAU meet a week before. He developed a severe blood blister after about six laps and had to quit. This injury hampered his running a week later in the 5000-meter run in the trials. He finished last.

Other Navymen in the trials were Dick Forester, SN, USN, who finished eighth in the 800-meter run; Lieutenant (junior grade) Sam Waltmire, USNR, finished 10th in the 3000-meter steeplechase; and Lieutenant (junior grade) Al Thompson, USNR, placed 13th in the shot put and 10th in the discus.

The only other member of the naval service to win a spot on the Olympic team was Marine Josh Culbreath.

The Quantico Marine equaled the world record of 50.4 in the 400-meter hurdles but had to settle for third place as Glenn Davis of Ohio State and Ed Southern of Texas U., both broke the world's record with respective times of 49.5 and 49.7 seconds.

The Navy athletes had earned the right to compete in the U.S. Olympic trials by winning first, second, or third place in the Inter-Service Track and Field Championships held in mid-June.

First place Navy winners in the Inter-Service were Jack Davis in the 110-meter high hurdles and Mark Smith in the high-jump event. Al Thompson was the Navy's only double placer, winning second place in the shot put and third in the discus throw.

Of the 52 members selected to the American Olympic Track and Field team, twelve are members of the armed forces:

From the Navy are Jack Davis, Benny Garcia and Milt Campbell (alternate). Marine Corps representative is John Culbreath. Army men on the team are Tom Courtney, 800-meter run; Lou Jones, 400-meter dash; Ira Murchison, 100-meter dash; and John Bennett, broad jump. From the Air Force are Thane Baker, 100- and 200-meter dashes; Parry O'Brien, shot put; Jim Lea, 400-meter dash; George Mattos, pole vault; and Lon Spurrier, 800-meter run.

—Rudy C. Garcia, JOC, USN.

SIDELINE STRATEGY

ONE OF THE HIGHLIGHTS of the coming football season at the Naval Academy will be on 24 September at Thompson Stadium when the second Navyman to be selected to football's Hall of Fame is formally inducted. A three-time All-American, Lt. Don Whitmire, USN, one of the most fabulous men ever to wear the colors of the Navy Academy, is the second Annapolis gridder to win such an honor.

The big (250 pounds) tackle, who starred on the gridiron at Annapolis in 1943 and 1944, joins some excellent company in Vice Admiral John H. "Babe" Brown, USN, (Ret.), who was selected in 1953. The selection of Don Whitmire, now assistant Director of Physical Education at the Naval Academy, came as no surprise to followers of Annapolis football fortunes.

Don's collegiate and Navy football record is not of the type you run across every day.

- All-State Alabama high school tackle 1939.
- All-Southeastern Conference sophomore team 1941.
- Played in 1942 Cotton Bowl and was selected to the All-Time Cotton Bowl Squad.
- First team All-American 1942.
- Named to All-Time University of Alabama team while still a junior.
- Played in 1943 Orange Bowl, selected to All-Time Orange Bowl team.
- Awarded Washington's Touchdown Club's Knute Rockne Memorial Trophy in 1944 as Nation's outstanding lineman.

Don was attending the University of Alabama when he was called to active duty with the Marine Corps in 1943. That same year, he won an appointment to the Naval Academy and was on hand for the 1943-44 football season. His football honors continued to pile up as he was selected to the tackle slot on the All-East and All-American teams in 1943.

Again the following year, he was unanimous choice All-American for Navy and was awarded the Knute Rockne Memorial Trophy by the Washington, D.C., Touchdown Club. This trophy is awarded annually to the nation's outstanding lineman.

During the time he was winning football honors at the Academy, Don was also taking good care of his military duties. So well, in fact, that he was appointed as the Naval Academy Brigade Commander during his first class year.

Since then, Don has had duty aboard three destroyers and also qualified as a submariner. He's also tried his hand at coaching, leading the Pacific Destroyer Force squad in 1947 to the Southern California service title, the Pacific Fleet championship and up to the All-Navy semi-finals.

—R. C. G.

THE BULLETIN BOARD

Advancement Exams to E-4 Will Be Held Four Times a Year

OPPORTUNITIES FOR ADVANCEMENT to pay grade E-4 in certain ratings are getting better all the time. To maintain the on-board strength in those ratings where there has been a continuing shortage of petty officers, two annual additional service-wide competitive examinations for *selected* pay grade E-4 rates have been established.

The first, which has been announced, will be held 21 November. Further special examinations will be held in May and November of each year. The normal February and August examinations will be continued for these and the other ratings in which there is a lesser need for large numbers of additional petty officers.

The rates eligible to compete in the November exam include a number of the selective emergency service rates. Personnel may compete in November for advancement to the following rates if they do not take the August exams:

ACW3, ACR3, ACT3, CS3, CT3, AQ3, GF3, QM3, RD3, RM3, MR3, BT3, IC3, CE3, AT3, AEM3, AEI3, PRS3, PRM3, MM3, EM3, ETS3, ETR3, ETN3, FTM3, FTU3, FTA3, FTL3, FTE3, SO3, and TM3.

Although the above rates are slated for the November examination, it is anticipated that there may be some revisions to this list in future November and May exams. The list of ratings to be examined in May and in future examinations will be announced by a BuPers Notice of the 1400 series.

Examinations in November 1956 will be used for the advancement of USN and USNR personnel on active duty with the regular establishment only.

The additional E-4 examinations conducted in November are specifically intended for examining personnel who have newly become eligible or who did not participate in the most recent service-wide examination. If, for example, you competed in the August 1956 service-wide examination for advancement and failed, you will be ineligible to compete in the November exam.

This requirement means that no one will be able to compete oftener than every six months.

Performance tests must be conducted before the service-wide competitive examinations are held.

The CAA Certificate requirement for advancement to pay grade E-4 in Air Controlman rating is waived for November examination for those Air Controlmen who are not assigned to control tower duties.

If you are advanced as a result of the May or November examinations, you will complete the time in grade requirements for advancement to pay grade E-5 three months before the round terminal eligibility date for August or February examinations. Requests for waivers of time in pay grade E-4 to permit you to compete in an earlier examination for E-5 will not be authorized.

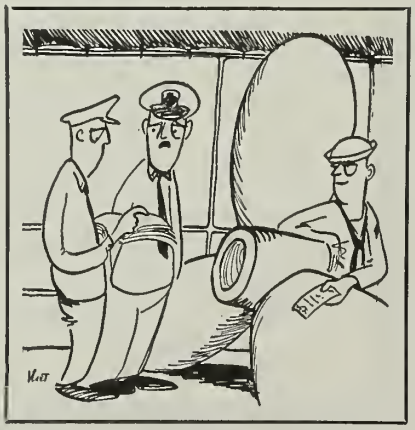
Instructor Duty Billets Open to HMCs and HM1s

A continuing need exists for qualified instructors in schools under the management control of the Bureau of Medicine and Surgery. Requests are desired from qualified HMCs and HM1s for Bureau of Naval Personnel controlled instructor duty.

Qualifications for this duty and instructions for submitting your request are contained in BuPers Inst. 1306.22B. In addition to qualications listed in this instruction, it is preferred that you be a Fleet Marine Force combat veteran if you request instructor duty in Field Medical Service School.

BuMed would like you to submit your request early enough to permit planning for orderly replacement of hospital corpsmen in instructor billets at least one year in advance.

All-Navy Cartoon Contest
G. C. Vliet, PNA3, USNR



"He does have a signed property pass."

50 POs Enter College under Advanced School Program

The first 50 petty officers to be chosen for participation in the new Navy Enlisted Advanced School Program enter Purdue University in September.

The program is designed to give selected enlisted personnel technical college educations and to provide them with the necessary background and knowledge to handle the complicated equipment of the modern Navy. It will provide a maximum of four years' college education; in return, each selectee will be required to spend two years on active duty for each year of college attendance.

The applicants must meet specific requirements as to age, education, and length of service in the Navy. They will be selected on the basis of their service records and competitive examinations. They report to the Naval Preparatory, Naval Training Center, Bainbridge, Md., during August to receive instruction in mathematics and general orientation.

At Purdue they will study technical courses in the Purdue Schools of Engineering and in the Technical Institute of the University. Upon completion of two years of study, they will return to the Fleet for a four-year duty period. Upon further re-enlistment for six years, and provided they are still qualified, they may receive an additional two years of advanced academic instruction.

Successful completion of four years of education at Purdue will entitle those Navymen meeting the University's requirements to an engineering degree.

Ten Enlisted Correspondence Courses Available to Active Duty Personnel and Reservists

Ten new Enlisted Correspondence Courses are now available to all enlisted personnel.

There have been certain administrative changes made since the last announcement concerning new Enlisted Correspondence Courses was made. For one thing, Enlisted Correspondence Courses will be administered (with certain exceptions) by your local command instead of by the Correspondence Course Center, as was the earlier practice.

If you are on active duty, your division officer will advise you whether or not the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have their courses administered by the Correspondence Course Center, just as in the past.

The new or revised courses are:

Course	NavPers No.
*Basic Hand Tool Skills	91228-1
*Mineman 3, Vol. 1	91334-1
Fire Control Technician 1, Vol. 2	91343
Chief Fire Control Technician, Vol. 2	91344
*Yeoman 1	91415-2
Machinist's Mate 1	91503
Chief Machinist's Mate	91504
*Builder 3	91583-1
*Builder 1	91585-1
Aviation Ordnanceman 2, Vol. 1	91661

* Courses so marked may be retaken for repeat Naval Reserve Retirement credit.

New Rules Set Up on Issuance of Bedding

Space-grabbing blankets and pillows will no longer burden your seabag, according to BuPers Inst. 10150.1B, which states that enlisted men below CPO will draw such bedding from the ship or station to which assigned, and that bedding will remain on board when an individual is transferred. This "organizational" issue of bedding, the same manner in which mattresses and bedding for officers, CPOs and Waves are handled, is both more economical and more convenient than previous methods of providing these necessities.

Before 1 Jul 1952 blankets and pillows were issued as part of the initial clothing allowance and became a man's personal property. From that date until 1 Jul 1956 these items were furnished on an "issue in kind" basis—they were yours to use until time of discharge, when they were returned to naval custody. Under the latter system, service record entries acknowledging receipt and return of blankets and pillows were required.

Under the new system all bedding marked "USN" which has been "issued in kind" to enlisted men becomes the property of the ship or station to which the man is assigned (or to which he is proceeding if in a travel status) and will be turned in at time of transfer. This bedding will be reissued later to men reporting aboard the command.

Personnel now using bedding which was issued as part of the initial clothing outfit before 1 Jul 1952, may retain these articles and, if necessary, will be furnished blankets and pillows by the ship or station to which attached.

HOW DID IT START

Knots

There are knots and knots and more knots. First, there's the figurative type, such as love knots and matrimonial knots. Then there are heraldic knots, the Bouchier and the Dacre, the Henage and the Harrington (which is not a knot at all).

Conjurer's knots, wind knots, Peruvian and monkey knots are fancy ones in the knot-tiers world.

Finally there are the knots used by sailors, fishermen, weavers and builders—the hitches and bends, whippings and splices used wherever rope or line is used.

Nobody knows who tied the first knot, nor in most cases how specific knots got their names. But the word "knot" itself comes from the Anglo-Saxon *cnotta*, meaning "to join together"; the word "bend" also comes from the Anglo-Saxon. Regardless of how they were originated and named, knots have existed from earliest times, and have played an important part both in fact and fancy.

Gorillas are known to tie knots in saplings and vines to make their nests, so there is no doubt that the most primitive men could also tie knots. Ancient knots have been found in Egyptian tombs, while stylized drawings of knots appear in that country's early art. The Greeks and Romans also used knots and had many beliefs concerning them—as did early Norsemen, English and Germanic peoples, practically all of the early civilizations whose records have come down to us.

One early superstition in northern Europe was that knots could be used to cure ills. For instance, it was believed that by saying certain magic words and tying a knot in a willow branch for each day a fever had lasted you could cure the fever. Or you could remove warts by tying a knot in a cord for each wart, then putting the cord under a stone. One version had it that when the cord rotted your warts would be cured; another said that the warts would be transferred to the first person stepping on the stone.

Other early superstitions included the belief that bandages knotted a certain way would help heal wounds; that knots could be used to keep an enemy from performing some act; and that naming a last-born son Knute or Canute (both meaning "knot") was effective in limiting the size of a family.

Sailor-wise the most interesting supernatural knots were those which controlled the winds. Early mariners used to purchase charmed cords of knots for use when they were becalmed at sea. It is said that there were three knots in the cord which, upon being untied, had the property to release a wind of moderate force, then a half-gale and finally a hurricane.

Nowadays we don't expect that sort of performance from knots, but any good book of knots will show you hundreds of hitches, bends, seizings and splices, each capable of turning in a first class performance in the job for which intended.

The Lowdown On Living in London for You and Your Family

If you are one of the lucky ones who anticipates duty in London, you and your family can look forward to an enjoyable experience. However, as in any foreign country, there are certain pitfalls that can be avoided if you are forewarned.

Here's a rundown on living conditions in London and the United Kingdom based upon a pamphlet prepared by the staff of Commander, U. S. Naval Activities, London. It will be useful to you.

All MSTS ships serving the United Kingdom arrive at Southampton. When your ship has moored at Southampton, a Navy representative will come aboard to help you disembark and travel to London with a minimum of inconvenience.

All civilian passengers, whether dependents or Civil Service employees, will be directed through immigration officials for clearance and landing permits. Military personnel do not have to clear through immigration. After you have completed clearing, you will be directed to the Navy representative for completion of your processing. All passengers must present orders or other authorization for travel via MSTS.

You will be advised where your advance hotel reservations have been made. Reservations are made automatically. If reservations are not desired, you should contact the hotel and make necessary cancellations; otherwise, you will be considered liable for payment.

When you have cleared your cabin baggage, and if you are ready to depart for London, the Navy representative will direct you to the railroad depot, where you will be able to get a train to London. You will be reimbursed for travel by commercial transportation.

All FLogWing Flights serving the United Kingdom arrive at Blackbushe Terminal, England, (37 miles from downtown London). When your plane arrives at Blackbushe Airport the Air Transportation Officer will come aboard. He will:

- Advise you concerning immigration and customs clearance procedure.
- Make sure you are guided and properly cleared through customs and immigration.
- Help you pick up your luggage at the Customs Table.
- Check your orders for proper endorsements.

When you have cleared customs the Air Transportation Officer will direct you to the government bus which is provided to take you into London.

Appliances — Electrical household appliances are available on the local market. Radios, electric irons, washing machines, electric ranges, refrigerators, vacuum cleaners, kitchen appliances, etc., of American manufacture for use on 110 volts AC, can be used in England provided transformers of sufficient capacity are used. Transformers of various capacities from 150 to 3000 volts range in price from $5 to $40. British light bulbs to fit American lamps are available at a moderate price. American appliances operated by a motor, such as refrigerators, washing machines, vacuum cleaners, mixers, etc., need no adjustment to operate from a suitable transformer. Electric clocks, however, will lose time owing to the 50-cycle current. Automatic washing machines that have to have equal pressure on the hot and cold inlets will not operate in the London area because of the difference in pressures on the hot water line (about 15 lb. per square inch) and the cold water line (60 lb. per square inch). Phonographs must be adapted to 50-cycle current to turn at correct speeds (see your local dealer for information).

Refrigerators (electric or gas) are usually found in the more expensive apartments or houses but are much smaller than those of American manufacture. You should strongly consider shipping your refrigerator if you want the storage capacity to which you are accustomed at home.

Electric heaters are usually desirable to supplement the heating system or fireplaces provided in English apartments and houses. Often it is possible to obtain heaters from personnel under orders to return to the States. Most American people use kerosene (paraffin) heaters available in England so it is not advisable to bring heating appliances.

Electric irons which are wired for British current may be purchased locally at reasonable prices, and are considered excellent. However, American irons will work with a transformer.

It is recommended that you do not bring American gas appliances with you. Do not bring American television sets to England. They are not adapted to British current and broadcasting stations.

The Navy Exchange has a special order section whereby you can place an order for any appliance. Estimated time between placing the order and receipt of appliance is approximately two to three months.

It is permissible to sell appliances upon completion of your tour of duty, provided the item is sold to a member of the U. S. armed forces or U. S. civilian personnel employed by the U. S. government on duty in the United Kingdom.

Automobiles—No restrictions are imposed by CinCNELM on the im-

portation of privately owned automobiles into the United Kingdom; however, automobiles over seven years old cannot be brought into England. As shipment and delivery require several weeks, there is ample time to comply with CinCNELM regulations and British customs regulations after reporting to the area for duty. If your car arrives on the same ship that you do, it can be picked up at Southampton about two days after reporting in, after obtaining necessary license plates, etc. Vehicles may be entered free of duty and purchase tax if a certificate is executed which binds the owner to export the car at a later date. Sale to another United States military individual who can execute the same type of certificate is permissible. Authority to operate automobiles in the United Kingdom must be obtained from CinCNELM.

Large American automobiles are difficult to handle in England because of parking conditions and narrow streets. Difficulty will also be experienced in obtaining garage space for a large car. Gasoline is unrationed and currently costs approximately $.60 per imperial gallon which equals $.48 for U. S. gallon.

In spite of the inconvenience inherent in operating an American automobile in the United Kingdom, you are nevertheless encouraged to bring yours with you.

If you want to buy a British automobile you will find it to your advantage to wait until arrival in England. Cars can be bought for dollars from British dealers through the Navy Exchange with delivery from one week to a month. The price is the same but you are not required to export or sell your car until the end of your tour of duty. American cars can be purchased at a slight discount and free of federal tax from local representatives. Time of delivery in England varies from six weeks to three months. Only one duty or tax free automobile may be owned at one time.

Baggage—*Hold Baggage:* When traveling to the United Kingdom by MSTS ship you and your family may bring with you the baggage which you would normally be allowed to carry free of charge on a railroad ticket. This amount is usually limited to 350 pounds for adults and 175 pounds for children under 16 years of age. Such baggage is in excess of cabin baggage and is carried in the hold of the ship where it is not accessible during the voyage.

Cabin Baggage: You will be advised by your Navy representative as to when you may disembark. After you have disembarked you will find your cabin baggage in the shed on the pier, under the first letter of your last name. You must *personally* clear your own cabin baggage through customs.

Churches—You will have no difficulty in finding a church of your denomination. In the London area there are 860 Church of England churches, 500 churches of other Protestant denominations, 160 Catholic churches and 100 Synagogues.

There is a U. S. Navy Catholic chaplain and a U. S. Navy Protestant chaplain in London. The chaplains' offices will be pleased to give any information or assistance regarding location of churches, times of services, etc.

Currency—Sterling (British money) is used in all civilian stores, hotels, etc. Because the conversion rate fluctuates slightly, the following is listed as a stable guide:

One pound (£) or 20 shillings (20s)	$2.80
One shilling (1s) or 12 pennies/pence (12d)	$0.14
Paper Notes:	
Five pounds	$14.00
One pound	2.80
Ten shillings	1.40
Coins:	
Half crown (2s & 6d)	.35
Two shillings (2s)	.28
One shilling (1s)	.14
Sixpence (6d)	.07
Threepence (3d)	.035
One penny (1d)	.01
Halfpenny (½d)	.005

Military Payment Certificates (scrip) are used only at authorized U. S. military establishments by au-

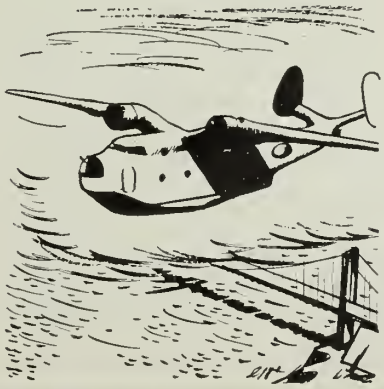
WHAT'S IN A NAME

Ancient Mariner

An era in naval aviation came to a close when the PBMs of Patrol Squadron 50 winged in over San Francisco Bay not long ago. For, as the last of the "Ancient Mariners" spanned the Golden Gate, it ended a long and illustrious chapter in the annals of the flying Navy.

PatRon 50 was the last operational PBM squadron in the Pacific Fleet, and that plane, a flying workhorse for the past 15 years, was put out to pasture upon the squadron's return from Japan. It is being replaced by the new P5M *Marlin*.

The PBM was the oldest seaplane patrol bomber still in service, and very possibly the oldest plane of any type still operational in Fleet units. Over 1000 of these 28-ton flying boats were originally built for the Navy. Seven different models were made, including the early PBM-1 which entered the Fleet in 1941, the PBM-5A amphibious version and the PBM-5S2 anti-submarine configuration which VP-50 had been flying.



The *Mariner* first came into its own during World War II, when its versatility proved an invaluable asset in the Atlantic and Pacific theaters. Needing no airfields and operating from tenders or whatever makeshift facilities were available, seaplanes practically moved up with the landing operations in the Pacific. PBMs served as troop carriers, cargo haulers, bombers, rescue aircraft and even torpedo bombers.

Until the *Mariner's* last flight, the role of the PBM squadron was essentially the same as it had been in World War II—and even with its new planes VP-50 will perform about the same duties. An anti-submarine patrol squadron, its secondary missions are reconnaissance, search and rescue, bombing and gunnery.

The squadron had been operating with PBMs since it was recalled to active duty in 1950. Its return from NAS, Iwakuni, Japan, to NAS, Alameda, Calif., marked the completion of its fifth tour in the Far East.

The men of PatRon 50 won't soon forget the PBM. Neither will the Navy— for the ancient *Mariner* served long and well.

thorized personnel in accordance with existing regulations. Military Payment Certificates are used only in the ship's service store, commisary, military clubs, etc. They are not to be used in the local civilian market.

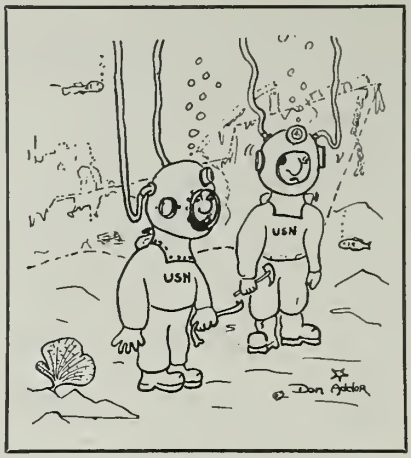
***Clothing**—Uniform:* The working uniform for naval personnel is Service Dress Blue "A," but to conform with the Royal Navy Regulations, Service Dress Blue "B" is prescribed from 1 May to 1 October. In addition to the prescribed military uniform, personnel are permitted to work in civilian clothing. However, you may have occasion to visit the Mediterranean area and should bring a full seabag when reporting for duty.

The Service Dress Blue uniform, with black bow tie, is suitable for smart formal occasions in England, as well as on the continent. In addition to civilian clothing for wear, it is suggested that an officer include a dinner jacket in his wardrobe.

Civilian Clothing (Men): Clothing for men is of very good quality and a price commensurate with similar items in the United States. Most suits are of English style. If you are unable to find what you want in a ready-made suit, you can have one tailored at the same price as those ready-made. However, it takes about six weeks to have a suit tailored. Military uniforms (blues) may be purchased in England at very reasonable prices or may be procured through the U. S. Navy Exchange tailor shop. Bring with you all medals you are entitled to wear.

Women's Clothing: It is suggested that you buy the clothes you think you will need before you leave the United States. Ladies' clothing in England is cut differently and the sizes do not conform to those in the United States. Sweaters and other woolens are in good supply and reasonable in price. It is suggested that you buy your shoes before leaving the United States, as you may find it difficult to get a proper fit in England.

Children's Clothing—Bring plenty of clothing and shoes with you. Clothing and shoes for children are in good supply. Woolens are plentiful. However, the style is different and in most cases children's clothing here is cut differently and sizes do not conform to the sizes in the United States.



"I'm thirsty!"

Education and Welfare—The Education Office is under the auspices of the U. S. Navy chaplain. Information on welfare facilities is also available at the chaplain's office. A list of agencies for emergency domestic work, emergency practical nursing, child care, etc., is also maintained here.

Food—There is no rationing in the United Kingdom. Food is plentiful, but some items, such as vegetables and fresh fruits, are expensive. The Commissary Division of the Navy Exchange is maintained in the headquarters building for the convenience of military personnel and their dependents.

Household Effects—The average length of time that household goods remain in transit is eight to ten weeks. An additional ten days is usually required to effect local customs clearance, pier handling and delivery. The consignee for all such shipments should be the Shipping and Receiving Officer, U. S. Naval Facility, London, England.

It is advisable to ship certain household goods and furnishings such as refrigerators, washing machines, kitchen utensils, tableware, linens, etc. However, it is recommended that items of furniture be kept to a minimum owing to the very limited number of unfurnished houses and apartments available.

Once you have arrived it will not be necessary to contact the Shipping and Receiving Officer regarding your household goods until you are notified by that office that they are on their way overseas. At that time you will be advised of the approximate date which you can expect to have your household effects released to you and what steps will be necessary for you to take in order to ensure their delivery.

Housing—Housing is an important problem. Unfurnished flats or houses are difficult to obtain and may require a long lease, that is, five years or longer. The average furnished two- or three-bedroom flat in the vicinity of Central London varies in price from $100 per month and up. Deposits against damages on departure are sometimes required.

Centrally heated homes are difficult to obtain and the definition of "central heat" is different from that in the States (one radiator in a home may be considered as central heat). The majority are heated by gas fires, fireplaces or electric heaters. Utilities are expensive and are additional to the rent. The usual price for cleaning women is about $.35 per hour.

It is suggested that before entering into any lease or rental agreement you consult the Naval Facility Legal Officer. Leases are quite different from the normal lease agreement in the States. Be sure that a clause is inserted into the lease giving you the right to notify the landlord upon change of station orders and to terminate the lease on 30 days' notice.

It is not advisable to sign any agreement or pay any money in rent or deposit (except some small sum to hold the premises during negotiation) until the Legal Officer has been consulted.

Medical Care—Your family may obtain medical care at the dispensary located at 30 Grosvenor Square, London. This is an out-patient service and limited as to treatment that can be given. There is no American inpatient service for dependents in London. The closest American hospital is at Ruislip, about 15 miles from London and operated by the U. S. Air Force. To newcomers, it is strongly advised to establish a physician close to your residence as the Navy does not make routine calls to private homes. Such service is at your expense. A list of private physicians can be obtained from the Naval Infirmary or the post office in each locality.

Immunization—All dependents anticipating travel to the United Kingdom should arrange to obtain an In-

ternational Certificate of Vaccination in addition to the U. S. Navy Immunization Record, prior to leaving the States. The International Certificate of Vaccination may be obtained from a U. S. Public Health Service Officer or a U. S. Navy Hospital. Consult a local U. S. Public Health Service Office for further details.

Routine immunization requirements for all military personnel and civilians traveling under Navy auspices outside the continental limits of the United States, regardless of destination are: smallpox, tetanus, typhoid and diphtheria, if Schick Test is positive.

Dental Facilities—The Dental Department of the Infirmary provides no dental treatment for dependents. If you require dental prosthesis take care of it before departure from the United States as there is no Navy prosthetic laboratory available in the United Kingdom.

Navy Exchange—A Navy Exchange is maintained within the CinCNELM headquarters building. The facilities of this activity are for the use of members of the armed forces and their dependents.

It stocks a well-balanced line of personal needs, household supplies and gift and sundry items desired by Americans away from home. A "Special Order" division is maintained to enable authorized patrons to make certain purchases (including major household appliances) at a saving in the British, European and American markets.

In the Commissary Division you will find a well balanced line of groceries, meats, vegetables and frozen food similar to that of an American supermarket.

Didn't you see me wave my hand for a left-hand turn?

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH is on page 9

1. (c) Fleet ocean tug.
2. (a) 205 feet.
3. (b) Holystoning.
4. (b) Clean the deck.
5. (c) AN.
6. (c) Trees.

Other services provided by the Navy Exchange are: barber shop, laundry, dry cleaning, shoe repair, watch repair, tailor shop, snack bar, photo finishing and shoe-shine stand.

Laundry and dry cleaning collection from homes is usually difficult to arrange in view of the overload existing in English laundries and dry cleaners. The situation is improving however. A central collection service is maintained by the Navy Exchange which has a contract with a British firm for laundry and dry cleaning. Costs of laundry and dry cleaning are higher than in the United States.

Passports—Apply for your passport at least six weeks before the estimated time of departure. If you live in the vicinity of Washington, D. C., make application in sufficient time to allow at least two weeks for processing in addition to necessary mailing time. Dependents are required to submit documentary evidence of American citizenship with their application for a passport. All dependents must have passports.

Recreation—There are many opportunities for recreation in London and the surrounding area. These include a variety of legitimate theaters, movies, concerts. There are many interesting and historical places to visit. Sight-seeing trips are available through commercial companies at reasonable rates.

London has many museums, art galleries and numerous antique shops and markets throughout the city.

Sports facilities include squash courts, swimming pools (both indoor and open air), tennis courts, ice rinks and golf courses. It is recommended that sports equipment be brought to the United Kingdom as sports gear purchased locally is very expensive.

Visits to various parts of England, Scotland and Ireland as well as to the continent during leave periods are always interesting as well as educational; information on travel by land, sea and air is readily available.

Schools—If you have children of school-going age (in England a child must attend school from his fifth birthday), consult the Chaplain's Office for advice concerning English schools.

Weather—London is located on Latitude 51°—30′ which places it opposite Labrador in North America. However, despite its northern latitude, the warm waters of the Gulf Stream, which surround the British Isles, produce a cool, damp, and so far as the range of temperature of the thermometer is concerned, equable climate. Days are long in the summer, very short in the winter, and there is not a great difference as in American seasonal temperatures.

In winter, the temperature usually ranges from 25 to 45 degrees Fahrenheit. There are usually few days of freezing weather, but the cold is damp and penetrating. This fact, in addition to indoor temperatures being lower than in the United States, makes it desirable and necessary to wear heavy clothing for comfort.

Completion Deadline Set for Course on Tropical Medicine

Enrollment in the Medical Department correspondence course, *Tropical Medicine in the Field*, has been discontinued by the Naval Medical School because some of the text material has become obsolete. Students now enrolled may complete the course for credit provided they submit all assignments before 30 Jun 1957. After this date the course will no longer be administered.

"He wants to see a disbursing clerk, claims he has pay coming to him . . . , retroactive to August 1943."

Check This List for Latest Information on Your Navy Career

IN NORMAL DAY-TO-DAY naval operations there is a continuing flow of information on your Navy career, service advantages, opportunities and benefits. This appears in a variety of forms in manuals, handbooks, regulations, pamphlets, catalogs, instructions and notices.

Although most of this material is generally available to all ships and stations, it's frequently difficult to locate once published and, at times, some information is unintentionally overlooked.

To round out your sources of information from time to time the Bureau has prepared a complete listing of the majority of directives dealing with career opportunities and programs available to Navy enlisted personnel and officers. Here's an up-to-date check-off list. (The asterisk indicates limited distribution to commands concerned.)

Subject	Pertinent Directive or Authority
ADVANCEMENT OR CHANGE IN RATE OR RATING	
GENERAL PROGRAMS	
Advancement in Rate/Rating:	
Policy	BuPers Inst. 1430.7B, *BuPers Manual* (Pt. C. Chap. 7. Sec. 2.)
Qualifications	*Manual of Qualifications for Advancement in Rating* (NavPers 18068)
Naval Reserve	*BuPers Inst. 1430.1A
Service-wide Competitive Examinations for Advancement to Pay Grades E-4, E-5, E-6 and E-7; policy, eligibility	BuPers Inst. 1418.7C
Changes in Rate, Rating, and Rate Symbols; policy	BuPers Inst. 1440.5A
SPECIAL PROGRAMS	
Advancement in Rating; personnel under instruction in service schools	BuPers Inst. 1430.5A
Change of Rating to ET, FT, AT, AQ, GS, and GF; policy, eligibility	BuPers Inst. 1440.12, BuPers Inst. 1440.-13, BuPers Inst. 1440.14, BuPers Inst. 1440.16
APPOINTMENT TO COMMISSIONED GRADE	
NAVAL ACADEMY, FLIGHT TRAINING, OCS	
Naval Preparatory School Training; policy, eligibility	BuPers Inst. 1531.2, *BuPers Manual* (Art. C-1203)
Aviation Cadet Training Program; eligibility requirements; procedures for applying	BuPers Inst. 1120.20A
Officer Candidate School; policy, eligibility	BuPers Inst. 1120.11A
SPECIAL PROGRAMS	
Appointment to Commissioned Grade, Integration and LDO Programs, Appointment to Warrant Grade; information concerning	BuPers Inst. 1120.18C
Selection of Qualified Members of the Naval Service for Aviation Officer Candidate Training and Appointment to Commissioned Grade in the Line; policy, eligibility	BuPers Inst. 1120.25
Regular Navy Augmentation Program; policy, eligibility	BuPers Inst. 1120.12D
Appointment to Commissioned Grade, SDO (Law), 1620; policy, eligibility	BuPers Inst. 1120.21
Appointment to Commissioned Grade, Optometry, Pharmacy, and Medical Allied Sciences Sections of the Medical Corps, Regular Navy; policy, eligibility	BuPers Inst. 1120.8A
Appointment to Comimssioned Grade in Administration and Supply Sections, Medical Service Corps, Regular Navy; policy, eligibility	BuPers Inst. 1120.15A
Appointment to Commissioned Grade in Administration and Supply Section, Medical Service Corps Reserve, U.S. Naval Reserve; policy, eligibility	BuPers Inst. 1120.10A
Nomination of Qualified Enlisted Personnel for the NROTC Program; policy, eligibility	BuPers Inst. 1111.4B
Appointment to Commissioned Grade of Enlisted Women in the U. S. Naval Reserve; policy, eligibility	BuPers Inst. 1120.9A
Appointment in the Field of Sciences of Personnel in the Medical Service Corps, Naval Reserve; policy, eligibility	BuPers Inst. 1120.24
TRAINING	
GENERAL TRAINING	
Enlisted Training Schools and Courses; policy, quotas, eligibility for enrollment	*BuPers Inst. 1500.-25A, *Catalog of U. S. Navy Training Activities and Courses* (NavPers 91769-B)
Information and Education Program; policy	BuPers Inst. 1560.1 *BuPers Manual* (Art. D-2103) *Information and Education Manual* (NavPers 16963-C)
Enlisted Correspondence Course Program	*Catalog of Enlisted Correspondence Courses* (NavPers 9-1200-A)
SPECIALIZED TRAINING	
Naval Air Mobile Trainer Program; policy, eligibility	*BuPers Inst. 1306.31A
Training Program for Change in Rating to ET, FT, AT, AQ, GF, and GS; policy, eligibility	BuPers Inst. 1440.12, BuPers Inst. 1440.-13, BuPers Inst. 14-40.14, BuPers Inst. 1440.16
U. S. Naval School of Music; applications for courses	BuPers Inst. 1336.2A
Assignment of Enlisted Personnel to the Nuclear Power Training Program; policy, eligibility	BuPers Inst. 1306.53, SecNav Inst. 1000.3
REENLISTMENT	
Reenlistment and Voluntary Extension of Enlistment of Regular and Reserve Personnel on Active Duty; procedure	BuPers Inst. 1133.1C and 1133.10, *BuPers Manual* (Art. A-4203, Art. C-1407)

Subject	Pertinent Directive or Authority
Reenlistment in the Regular Navy or Voluntary Retention on Active Duty of Inducted Personnel; policy eligibility	BuPers Inst. 1133.8
Discharge up to 1 Year in advance of Normal Expiration of Enlistment Date in order to Reenlist; policy eligibility	BuPers Inst. 1133.4
Reenlistment in the Regular Navy of Naval Reserve Personnel Serving on Active Duty; policy, eligibility	BuPers Inst. 1130.4C
Assignment to Duty of Personnel on Reenlistment; policy, options, choice of duty, etc.	BuPers Inst. 1306.25C
Assignment to a School as an Incentive for Reenlistment; policy, eligibility	BuPers Inst. 1133.5

SPECIAL DUTY AND ASSIGNMENT

GENERAL POLICY

Requests for Change of Duty; policy	*BuPers Manual* (Art. C-5203)
Sea/Shore Rotation; shore duty eligibility list, policy	BuPers Inst. 1306.20B
Training and Administration of the Naval Reserve; duty in; policy, eligibility	*BuPers Inst. 1001.7A
Retention on Active Duty and Recall thereto of Enlisted Naval Reserve and Fleet Reserve Personnel; information concerning	BuPers Inst. 1001.21
Assignment and Rotation of Enlisted Women; policy	BuPers Inst. 1306.10B

SPECIAL ASSIGNMENTS

Transfer and Assignment for Humanitarian or Hardship Reasons; policy, eligibility	*BuPers Manual* (Art. C-5209)
Assignment of more than one Member of same Immediate Family to some Unit; policy	Same as above
Assignment to Duty of Sole Remaining Sons; policy	BuPers Inst. 1300.11
Assignment to Naval Missions, Attaches, Military Aid Groups, Joint Staffs, SHAPE; policy, eligibility	BuPers Inst. 1306.6A
Assignment to Recruiting Duty; policy, eligibility	*BuPers Manual* (Art. C-5208), BuPers Inst. 1336.1A
Assignment to Duty as Instructor; policy, eligibility	BuPers Inst. 1306.22B, *BuPers Inst. 1306.-42 (applies to musicians only)
Assignment with Naval Security Group Activities; policy, eligibility	BuPers Inst. 1306.23C
Assignment to Submarine Duty; policy, eligibility	BuPers Inst. 1540.2A
Assignment to Reserve Training Submarines; policy, eligibility	*BuPers Inst. 1306.38
Assignment to Duty Involving Demolition of Explosives; policy, eligibility	BuPers Inst. 1320.5A

PAY, ALLOWANCES, SAVINGS, INSURANCE

Soldiers' and Sailors' Civil Relief Act of 1940; summary of benefits under	BuPers Inst. 1760.4
Unifarmed Services Contingency Option Act; options under	BuPers Inst. 1750.1A
Social-Security Benefits due to Active Duty; summary of benefits under	BuPers Inst. 1760.8
Basic Allowance for Quarters; policy, eligibility	BuPers Inst. 7220.12
Savings Deposits of Enlisted Personnel; policy	SecNav Inst. 7220.9
Retainer Pay upon Transfer to the Fleet Reserve; policy, eligibility	BuPers Inst. 1813.1
Mortgage Insurance for Servicemen to Aid In the Construction or Purchase of Homes; policy, eligibility	SecNav Inst. 1741.4

SEPARATION AND RETIREMENT

Separation and Civil-Readjustment Information; summary	BuPers Inst. 1760.12
Review of Undesirable and Punitive Discharges; information concerning	BuPers Inst. 1626.16
Early Separation of Enlisted Personnel to attend College	BuPers Inst. 1910.12
Retirement, Voluntary and Naval Reserve without Pay; policy, eligibility	BuPers Inst. 1820.1A, BuPers Inst. 1820.2, SecNav Inst. 1811.-3A

PROGRAMS AND OPPORTUNITIES OF PARTICULAR INTEREST TO OFFICERS

MISCELLANEOUS

GENERAL INTEREST

The Navy Relief Society; services by	*BuPers Manual* (Art. C-9207) BuPers Inst. 1747.1A
The American Red Cross; services by	*BuPers Manual* (Art. C-9207, Art. C-10-308 (7))
Voting by Members of the Armed Forces; policy	BuPers Inst. 1742.2A
Immigration and Nationality Act of 1952; alien spouses, naval personnel; information concerning	SecNav Inst. 1750.1
VA Hospitals; transfer of Naval active and retired personnel to; policy	BuMed Inst. 6320.11
Marriage of USN and USMC Personnel outside the United States and within Far East Command; policy	SecNav Inst. 1752.1, SecNav Inst. 1752.2
Visas for Alien Wives and Children of Naval Personnel; information concerning	*SecNav Inst. 1750.2
Participation of Enlisted Personnel in Inter-Service and International Athletic events and competitions; policy, eligibility	BuPers Inst. 1710.1C, BuPers Inst. 1710.2
Transportation of Dependents; policy	BuPers Inst. 4650.6A, BuPers Inst. 4650.-8A, SecNav Inst. 4651.1
Summary of State Bonuses	BuPers Inst. 1760.3B

TRAINING

GENERAL TRAINING

Schools ond Courses	*Catalog of U. S. Navy Activities and Courses* (NavPers 91769-B) *BuPers Inst. 1500.25A
General Line School; policy, eligibility	BuPers Inst. 1520.43
Postgraduote Instruction; policy, eligibility	BuPers Inst. 1520.15B
Five-Year term College Training Program; policy, eligibility	BuPers Inst. 1520.37
Completion of Naval Aviation College Progrom for USN Officers; policy, eligibility	BuPers Inst. 1520.38
Officer Correspondence Courses; summary	*Catalog of Officer Correspondence Courses* (NavPers 10800-A)

Subject	Pertinent Directive or Authority
SPECIALIZED TRAINING	
Flight Training (HTA); policy, eligibility	BuPers Inst. 1520.20
Underwater Demolition Training; policy, eligibility	BuPers Inst. 1520.7
Deep Sea Diving Training; policy, eligibility	BuPers Inst. 1520.4A
Training and Administration of the Naval Reserve; policy	BuPers Inst. 1001.10A
ASSIGNMENT TO SPECIAL DUTY	
Assignment to Submarine Duty; policy, eligibility	BuPers Inst. 1520.6G
Assignment to Special Weapons Program; policy, eligibility	BuPers Inst. 1331.1A
Assignment with a Navy Security Group; policy, eligibility	BuPers Inst. 1331.2A
Assignment to Duty Involving Demolition of Explosives; policy, eligibility	BuPers Inst. 1320.5A
Assignment to Nuclear Power Program; policy, eligibility	SecNav Inst. 1000.3
APPOINTMENT	
Appointment to Ensign, Integration and LDO Program; policy, eligibility	BuPers Inst. 1120.18C
Appointment of Naval Reserve Aviators to Commissioned Grades in Regular Navy; policy, eligibility	BuPers Inst. 1120.14A
Appointment of Naval Reserve Medical and Dental Corps Officers to Commissioned Grades in the Regular Navy; policy, eligibility	BuPers Inst. 1120.3C
MISCELLANEOUS	
Uniform Allowance for Naval Reserve Officers; entitlement and reimbursement for	BuPers Inst. 7220.14A

List of Motion Pictures Ready for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number. Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in June.

Films distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and distributed free to ships and most overseas activities. They are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

Soldier of Fortune (544) (C) (WS): Adventure Drama; Clark Gable, Susan Hayward.

Hot Blood (545) (C): Drama; Jane Russell, Cornell Wilde.

Our Miss Brooks (546): Comedy; Eve Arden, Robert Rockwell.

The Price of Fear (547): Drama; Merle Oberon, Lex Barker.

Kismet (548) (C): Musical; Howard Keel, Ann Blyth.

Carmen Jones (549) (C) (WS): Musical Drama; Dorothy Dandridge, Pearl Bailey.

Timetable (550): Drama; Mark Stevens, Felicia Farr.

Mohawk (551) (C): Indian Adventure; Scott Brady, Rita Gam.

The Uranium Boom (552): Dennis Morgan, Patricia Medina.

Miracle in the Rain (553): Drama; Jane Wyman, Van Johnson.

There's No Business Like Show Business (554) (C) (WS): Musical; Ethel Merman, Dan Dailey.

The Lone Ranger (555) (C): Western; Clayton Moore, Jay Silverheels.

Magnificent Roughnecks (556): Comedy Drama; Jack Carson, Mickey Rooney.

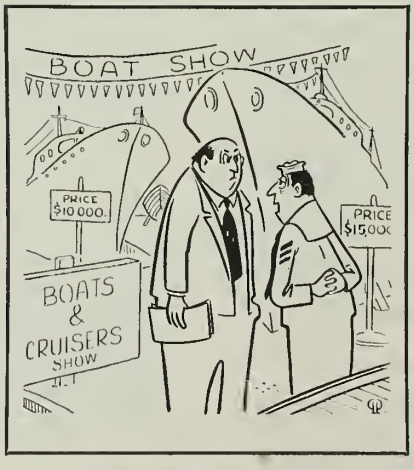
Emergency Hospital (557): Melodrama; Walter Reed, Margaret Lindsay.

The Conqueror (558) (C) (CS): Costume Drama; John Wayne, Susan Hayward.

Flight of the White Heron (559) (C) (CS): Documentary.

Hell on Frisco Bay (560) (C): Crime Drama; Alan Ladd, Edward G. Robinson.

Ghost Town (561): Western Drama; Marian Kerr, Kent Taylor.



"No thanks, just looking."

Crime Against Joe (562): Drama; John Bromfield, Julie London.

Picnic (563) (C): Romantic Drama; William Holden, Kim Novak.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 17—Cited Public Law 538, which provides authority to ship motor vehicles of military personnel by privately owned American vessels whenever such transportation is otherwise authorized by law.

No. 18—Announced the convening of a line selection board to recommend officers on active duty for temporary promotion to the grade of rear admiral.

No. 19—Announced the convening of staff corps selection boards to recommend officers on active duty for temporary promotion to rear admiral. Boards will be convened to consider officers of the Medical

Corps, Supply Corps, Civil Engineer Corps and Dental Corps.

No. 20—Requested early financial returns from ships and overseas stations.

No. 21—Paid tribute to FADM Ernest J. King, USN, upon the announcement of his death.

Instructions

No. 1306.58—Establishes procedures concerning the transmission of personnel data via transceivers and to the transfer of enlisted personnel by means of punch cards.

No. 1320.1E—Provides revised accounting data and other instructions to be used in preparing travel orders for enlisted personnel on full-time active duty.

No. 1440.17—Announces a program whereby certain personnel in the Tradevman rating may serve in air traffic control duties with later opportunity for change of rating to Air Controlman.

No. 1510.70—Announces standard grading scale and passing grade to be used by enlisted schools.

No. 10150.1B—Changes enlisted personnel blankets and pillows from issue-in-kind to items provided by ship or station for use.

Notices

No. 1426 (31 May)—Published a list of USN officers temporarily serving in the grade of lieutenant (junior grade) who became eligible for permanent appointment to that grade during 1955 and whose physical qualifications have not been received in the office of the Judge Advocate General.

No. 7290 (1 June)—Announced a survey to be conducted to determine the actual expenses incurred by military personnel in transporting house trailers between duty stations.

No. 1223 (1 June)—Announced further changes to the enlisted rating structure, in which Boilermaker pay grades E-6 and E-7 were established as a general service rating, Fire Control Technician L (Integrated Systems) and Fire Control Technician E (Electromechanical) were established as emergency service ratings and Draftsman L (Lithographic) was disestablished as an emergency service rating.

No. 1520 (5 June)—Notified the naval service of the establishment of a program of seminar training in professional subjects for chaplains on active duty.

No. 1130 (5 June)—Announced Change No. 2 to BuPers Inst. 1130.4C, which is concerned with the enlistment or reenlistment in the Regular Navy of Naval Reserve personnel serving on active duty.

No. 1421 (6 June)—Announced the selection of enlisted personnel for temporary appointment to Warrant Officer W-1.

No. 1700 (7 June)—Announced further details of the Mrs. United States Navy, 1956, contest.

No. 1820 (7 June)—Announced Change No. 1 to BuPers Inst. 1820.1A, which provides information concerning non-disability retirement with pay of present and former USNR officers and enlisted personnel.

No. 1418 (14 June)—Announced additional service-wide competitive examinations for selected pay grade E-4 rates to be conducted in November 1956.

Roundup of Legislation Of Interest to Navymen

Here are further highlights of legislative action taken by the 84th Congress, second session, of interest to naval personnel.

This summary includes those bills which have been introduced as well as those on which action has been taken. A later summary will contain information concerning further action on these bills.

Four bills have been made into law. They are:

Public Law 490 (Formerly H. R. 8107)—Provides for increased pay for six-month trainees.

"Are you sure they won't suspect that this isn't a costume I'm wearing?"

Public Law 497 (Formerly H. R. 9428)—Pertains to medical and dental officer procurement. Provides for the crediting of constructive service for pay and precedence purposes and increases the amount of special pay per month.

Public Law 547 (Formerly H. R. 8904)—Authorizes advancement on retired list to highest temporary grade in which service was performed satisfactorily.

Public Law 569 (Formerly H. R. 9429)—Provides authority for hospitalization and medical care of dependents of members of uniformed services in either military or civilian facilities. Dependent could select which, but use of military would depend on extent of facilities and medical staff. Also, where the military facilities are adequate, election may be limited by regulations to those facilities.

Here's the status of other bills:

Public Law 614 (formerly H. R. 2106)—Provides for non-termination of enlistment contracts or obligated service of persons appointed to a service academy.

Public Law 581 (formerly H. R. 4229 and S. 1441)—An amendment to the Officer Personnel Act to abolish fanning principle in assignment of running mates for Academy and NROTC graduates commissioned in or transferred to staff corps in grade of ensign.

Public Law 584 (formerly H. R. 4704)—Provides administrative flexibility in requirements regarding professional qualifications for promotion.

Substandard Quarters—H. R. 5731 and S. 1947: Would permit occupancy on a rental basis without loss of quarters allowance Reported to House.

Enlisted Members of Navy and Marine Corps—H. R. 8407: Would permit making up time lost as result of misconduct by extending period of enlistment. Passed House 2 July 1956.

Public Law 585 (formerly H. R. 8477)—Introduces an amendment to Women's Armed Services Integration Act to provide flexibility in distribution of women officers. Authorizes retention of Wave lieutenants on active duty until they have completed 15 years of commissioned service.

Here's Chance of College Training for Eligible Navy Officers

A CHANCE TO OBTAIN an education leading to a college degree is now being offered to outstanding naval personnel. The candidates will be selected from those in the Navy's "augmented" and "integrated" programs.

The augmented program offers a USN line commission to highly qualified Reserve officers, while the integrated program selects top enlisted personnel for Regular Navy appointments. This educational program leading to a baccalaureate degree is an extension of the Navy's 5-Term College Training Program.

To be eligible for the five-term college training program, you must be in the 1100 and 1300 category, with a permanent rank of ensign or above but below the grade of commander. Also, you must be accepted by an NROTC university (or George Washington University), with an advanced standing of 45 semester hours or equivalent quarter hours.

Since colleges differ in the required courses of study for admission to advanced standing, you should, if interested in applying for advanced standing to a specific NROTC university, follow the requirements of that university.

Credit hours which are acceptable to most colleges and universities may be earned by the following means or any combination of the following:

- GED Test (General Education Development)—Up to 24 semester hours may be earned by successfully passing this test which is administered by most NROTC universities and the George Washington University.
- U S A F I Correspondence Courses.
- Completion of accredited college courses.
- Service Schools—Some colleges and universities give credit for successful completion of a service course. Each university will have its own policy in this respect. A good summary of expected university credit for service courses may be found in "A Guide to the Evaluation of Education Experiences in the Armed Forces" published by the American Council on Education.

Here's how to apply for this program. Augmented and integrated officers who already have at least 45 semester hours (or equivalent quarter hours), or at such time as they may earn a minimum of 45 units, should submit their applications to the Chief of Naval Personnel (Attn: Pers C122). Information in the application should include all transcripts and records of qualifying academic work, a specific major field selection, and two choices of schools.

The Bureau will then send your nomination, along with your academic record, to the Professor of Naval Science at the university of your choice. You will then be requested to complete the application for admission form and other such papers required by the university. The Professor of Naval Science will then notify the Chief of Naval Per-

WAY BACK WHEN

Rope Making

The origin of the art of rope making is lost in those shady days before man had found a means of recording his history, but the earliest available records show that many of the world's savage tribes, as well as most of the ancient civilized nations, were accomplished rope makers.

Whether this art was discovered in a single place and spread throughout the world, or whether various races discovered rope making independently is not known; and since rope materials are perishable, the earliest examples of rope making we have in today's museums are not nearly so old as man's first attempts to make weak plant fibers strong enough to do his bidding.

Even so, there is ample evidence that Neolithic men in most parts of the world were twisting plant fibers into cords and ropes. The Swiss lake-dwellers of the late Stone Age were excellent weavers and rope makers. The Incas of Peru used maguey fibers to turn out some first-class cordage.

The same Egyptian tombs which have preserved so much early history, have also provided us with specimens of flax, papyrus and rawhide rope about 3500 years old; and it is known that the early Egyptians and Persians used cordage in rigging ships, building bridges and hauling heavy stones for building.

North America's Indians were also makers of twisted fiber cordage. The Nootka tribe of the Pacific Northwest twisted small cedar limbs into three-strand rope to be used as whaling lines. These cedar ropes measured four to five inches in circumference. Nootkas also twisted whale sinews into three-strand rope for harpoon lanyards.

From those primitive times right on up until the 19th century, rope manufacture was strictly a job for hand labor, with early ropewalks equipped with little more than clumsy wheels. The hemp or other fiber was first hackled by combing over a board studded with sharp teeth. Then, with a quantity of this combed yarn wrapped about his waist, the spinner attached a few fibers to a hook on the crude spinning wheel. As a helper revolved the wheel by hand, the spinner backed slowly away, all the while feeding a uniform amount of fiber from the loop about his waist into the growing length of yarn.

After several yarns were completed, they were twisted together by the same process to form strands. The process was repeated with the strands to form or "lay" the rope. Horsepower was used for making rope too large to be laid by hand.

In the U. S. in 1810 there were 173 ropewalks—one in practically every fair-sized community—turning out rope by this crude method. These ropewalks were usually 900 or more feet in length, and frequently open to the weather.

Mechanization of the rope industry really began in 1820, when the English built machines for twisting hand-spun yarns into strands. The Americans followed up, in 1834, with machinery for spinning threads from the hackled yarn.

Nowadays there are machines to perform every step of rope making, and factories capable of turning out unlimited miles of the stuff, but the crude methods described above are still used in many parts of the world; and in the U. S. improved versions of the old-fashioned ropewalk are much used in the manufacture of larger ropes, and for special order ropes on which fast delivery is desired.

sonnel whether you have been accepted for future enrollment with an advanced standing of 45 semester hours or more.

If you are accepted, your name will be put on an eligibility list and the determination made as to the number of semesters or quarter hours (not to exceed five semesters or seven quarters) required for you to acquire an education up to the baccalaureate level.

After your eligibility has been established, you will be ordered into the program when you become available. In general, you will be assigned to the program as soon as practicable, normally after a tour of sea duty.

All officers enrolled in this program will be required to carry a minimum of 15 credit hours of study per term and must have completed or plan to include the following courses of study: Mathematics through solid geometry and trigonometry, proficiency in written and oral use of the English language, and one year of physics.

You may select any major field of study (subject to the approval of the academic authorities) leading to a baccalaureate degree except Pre-Dental, Pre-Pharmacy, Pre-Medical, Music or Art.

Elective courses taken must be approved by the Professor of Naval Science. Requests for courses such as anthropology, retail store management, real estate, basic voice training, the home and its furnishings, will not be approved.

If eligible, you will receive orders to attend an NROTC university which will accredit you with at least 45 semester hours. Length of this tour of duty will be for the number of semesters or quarters necessary (not to exceed five semesters) for you to acquire a baccalaureate degree.

A summer session will normally be counted as one semester or quarter in the number of terms awarded. However, if your assignment is such that you receive two summer sessions in the time awarded, an additional semester or quarter may be awarded so that you may earn the necessary credit hours to obtain your degree. Six quarters are considered the equivalent of four semesters.

Aviation officers must enroll at an NROTC university that is located within 100 miles of a naval air station so that they can maintain flight proficiency by logging the required number and type of flight hours.

All-Navy Cartoon Contest
G. C. Vliet, PNA 3, USNR

"By the way, do you remember which recruiting poster this was on?"

Naturally, a passing mark in all subjects is expected and each student officer must maintain a satisfactory academic standing. If you receive a failing mark, you will automatically be placed on probation for the next term.

Should you receive a failing mark while on probation, you will be removed from the program unless the Professor of Naval Science recommends otherwise.

Failure in the program, however, is not necessarily an indication that you cannot succeed in your professional career or qualify for future advancement as a well-rounded officer.

Officers who are NOT eligible for this program are:

- Commanders and above.
- Officers over 40 years of age.
- Officers who have attended a postgraduate course of one academic year or longer, or any advanced service school such as the Naval War College, Air University, or Armed Forces Staff College.
- Officers who have failed selection in their present grade.

The Five-Term Training Program for officers was originally limited to officers who transferred to the Regular Navy prior to 1949. This program has now been extended, on a continuing basis, to eligible augmented and integrated officers. The first input under the new program is planned for the fall of 1956. Complete details on this program, along with the list of NROTC universities which may be used for this education, are in BuPers Inst. 1520.48.

Medical and Dental Officers Receive Special Pay

Implementing instructions have been issued on special pay provided for medical and dental officers by Public Law 497 (84th Congress).

The special pay (varying from a minimum of $100 to a maximum of $250 per month) became effective on 1 May for commissioned officers of the Medical and Dental Corps, either USN or active-duty USNR, and should be credited from that date on the basis of the active duty performed as a medical or dental officer.

Commencement of credit for the special pay and the constructive service credit must be substantiated by a certificate executed by the officer concerned and submitted to the Disbursing Officer. This certificate should contain:

1. Inclusive dates of all periods of active duty performed as a medical or dental officer prior to 1 May 1956;
2. Inclusive dates of attending medical or dental school;
3. Inclusive dates of medical internship (if applicable);
4. Inclusive dates of any service credited for basic pay purposes performed during the period of medical school, dental school or internship.

Special pay entry base dates and adjusted basic pay entry base dates for medical and dental officers have been promulgated by BuPers Notice. Disbursing officers holding pay records of officers who were on active duty on 1 May, but who are not included in the Notice, should request such dates from the Bureau of Naval Personnel for each officer concerned. Subsequent adjustments to the special pay previously credited and the number of years' service should be made as necessary.

For additional information on service creditable for pay purposes, election under the Uniform Contingency Option Act and adjustment of lineal position, see Alnav 16 and SecNav Notice 7200 of 8 May.

BOOKS: MID-SUMMER READING LIST TAKES YOU TO MARS — AND BACK AGAIN

If you were to judge by the spate of books concerning space travel, it would be safe to assume that journeys to the Moon, Mars, and other suburbs of the Earth have already been accomplished.

Whether reality or a dream world, it's a fascinating subject and you'll find further additions to it this month in your ship or station library.

Based on astronomical realities and engineering knowledge available today, ***The Exploration of Mars,*** by Willy Ley and Wernher Von Braun, is a blueprint for actual travel laid out with such precision and conviction that you're inclined to reach for a time table.

The feasibility of such a trip is blandly taken for granted — the only problems now to be solved, the authors assume — are such routine details as financing and such purely mechanical details as building a space ship, establishing a space station, and charting the course for the 35,000,000-mile trip that will take almost three years. One of the most wildly romantic concepts of mankind is discussed here in terms of specifications of the ship, selection and training of crew members, and actual details of the trip, presented here with a vividness that causes the reader to experience both the nerve-racking months in space and the final tenseness of the landing.

A comprehensive account of existing knowledge of Mars, and past and present theories, including those relating to "intelligent inhabitants," gives the book an additional dimension that is lacking in most books of space travel. The text is supplemented by a Mars bibliography, tables, diagrams, historical and modern maps and eye-catching illustrations by Chesley Bonestell, some of which are in color. It all adds up to science-fiction discussed in terms of sober reality.

Rocket and space travel is literally history in the making and, already, it is being recorded as such. Heinz Gartmann, a well-known expert on rocket research, is one of the men who has played a part in the growth of this science.

In ***The Men Behind the Space Rockets,*** Dr. Gartmann describes the lives and work of his fellow scientists. When, in the future, men look back on the vast expansion of the human world, brought about by interplanetary space travel, names in the news of today will be regarded much the same as we consider those of Galileo and Newton. Those selected by the present author include Hermann Ganswindt, the disregarded fanatic who produced the first realistic plan for a space ship, Tsiolkovski, the obscure Russian schoolmaster who bequeathed his research work to the Communist Party; Robert H. Goddard, the American professor who designed the first liquid-propelled rocket; Herman Oberth, the pioneer of German rocket research, who is now at work in America; and, says Garthmann, perhaps the most brilliant of them all, Wernher Von Braun, who was not only chief designer of the V-2, but was also co-author of the volume referred to above.

In addition, Dr. Gartmann includes a few practical traveler's tips for your first trip to Mars.

If you prefer to keep your feet more firmly on the ground, or on the water, you might try ***The Age of Fighting Sails,*** by C. S. Forester. As might be expected from that master craftsman, the book is remarkably good reading, even though straight history of a period in which we came dangerously close to being beaten.

This is a history of the War of 1812 — naval phase. Forester tells not only of the more outstanding battles but also the imponderables, such as distance and lack of communications, the mood of both countries — both ready for peace at any price but reluctant to admit it. As Forester does so well, he tells of the war in terms of men and ships with a surprising amount of interesting detail. Rodgers, Stewart, Decatur, Isaac Hull, Porter, Bainbridge, Jacob Jones, Lawrence and Perry come clear with the great contributions they made, despite uncertainties in Washington, lack of ships and supplies.

If you've only read the typical school history, you'll be amazed (and pleased, we hope) with the scope of coverage, the details, and the understanding of the issues and pattern of thought.

The Return of Lono, by O. A. Bushnell, is something different again. It's a novel concerning the death of Captain Cook at the hands of the natives of Hawaii.

It's a first rate, mature story of the events leading up to the tragedy, told in the first person by midshipman John Forrest, who acted as Cook's clerk.

In an entirely different mood, time and place is ***The Cross of Iron,*** by Willi Heinrich. It is a big, tough, angry German novel about World War II, in which an ex-member of the Wehrmacht tells the story of a plain German soldier as he really saw himself, his officers, his enemies, and his High Command. The author knows his subject. From 1941 to 1945 he served with a German infantry division and marched across 8000 miles of Russian soil, during which the division lost 12 times its original manpower and Corporal Heinrich was wounded five times.

SONGS OF THE SEA

Song of the Oarsmen

Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
Yeo ho! lads, heave ho!
CHORUS:
Yo ho, yo ho!
Yo ho, ho ho!
Oh oy, oh oy!
Oh, oh, oh oy!
Ho yo, ho yo!
Ho yo, yo yo!
With a tum-diddy, tum-diddy, yea.

—Anonymous.

DECORATIONS & CITATIONS

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ PRIDE, Alfred M., VADM, USN, for the performance of exceptionally meritorious service to the government of the United States as Commander Seventh Fleet from Dec 1953 to Dec 1955. Admiral Pride was instrumental in maintaining the Fleet in a high state of combat readiness at a time when it was repeatedly under orders to prepare to support the defenders of the Tachen Islands. When the evacuation of the islands was carried out, he personally supervised and directed the removal of civilians, military personnel and equipment within a period of three and one-half days while his combat forces provided air and surface cover. As Commander United States-Taiwan Defense Command, he was directly responsible in implementing United States policy in cooperation with the Government of the Nationalist Republic of China for the defense of Taiwan.

Gold star in lieu of second award:

★ DAVIS, Arthur C., VADM, USN, for the performance of exceptional service to the government of the United States as Deputy Assistant Secretary of Defense (International Security Affairs) from 20 Apr 1954 to 29 Sep 1955. Exercising administrative and planning ability of the highest caliber, Vice Admiral Davis was successful in carrying out his many and exacting assignments. During the Geneva negotiations relating to the Dien Bien Phu siege in Indo-China, he was personally instrumental in charting a wise course of action for the United States when Western Nations were placed in the critical position of negotiating a settlement. He served as adviser to the Secretary of State in high-level meetings in Paris which established the background for the Geneva 'Summit' Conference.

Gold star in lieu of fourth award:

★ CARNEY, Robert B., ADM, USN, for exceptional service to the government of the United States as Chief of Naval Operations and Member of the Joint Chiefs of Staff for a period of two years commencing 17 Aug 1953. Exercising the highest quality of command leadership, Admiral Carney displayed foresight and keen understanding in directing the unified commands for which he was the executive agent. He participated in the formulation of strategic plans for the defense of the United States and the establishment of policy dedicated to maintaining peace and freedom throughout the world.

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

Gold Star in lieu of third award:

★ MILES, Milton E., RADM, USN, as Commander Task Group 84.7, Yucatan Peninsula and Tampico, Mexico, United States Military Joint Disaster Relief Operation, from 30 Sep to 20 Oct 1955. Admiral Miles skillfully coordinated and directed the joint forces under his command in carrying out rescue operations following the hurricane and flood disaster.

"For heroism or extraordinary achievement in aerial flight . . ."

★ GORDON, Erving L., LT, USN, as a pilot during operations against enemy Japanese forces in the Pacific War Area from 8 Jun to 15 Aug 1954.

Gold Star in lieu of third award:

★ JOHNSON, Clarence R., LT, USN, as a pilot and section leader of night attack bombers attached to Fighter Squadron 194, based aboard the USS *Boxer*, during operations against enemy aggressor forces in Korea on 26 Jul 1953.

"For heroic conduct not involving actual conflict with an enemy . . ."

★ BANKS, William S., BM1, USN, for heroic conduct in rescuing a shipmate from drowning at Cannes, France, on 4 Jul 1955.

★ CATA, David, BM2, USN, for heroic conduct in rescuing an aircrewman from drowning in waters off the coast of Delaware on 7 Dec 1955.

★ COBB, Carlin J., EN3, USN, for heroic conduct while serving on board USS *Pomodon* (SS 486) during a series of explosions in that vessel on 20 Feb 1955.

★ DURBOROW, James W., CDR, USN, for heroic conduct in rescuing a seven-year-old boy who had fallen through the ice near Norfolk, Virginia, on 23 Dec 1955.

★ FREEMAN, Peter H., LT, USN, for heroic conduct in attempting to rescue a victim of an explosion on board USS *Pomodon* (SS 486) on 20 Feb 1955.

★ NEWBOLD, John R., AD2, USN, for heroic conduct in rescuing a pilot from a burning aircraft at Olathe, Kans., on 21 Aug 1955.

★ RIDLER, George M., AD1, USNR, for heroic conduct in rescuing a pilot from a burning aircraft at Olathe, Kans., on 21 Aug 1955.

★ TALLADINO, Pasquale, EN2, USN, for heroic conduct in attempting to rescue a victim of an explosion on board USS *Pomodon* (SS 486) on 20 Feb 1955.

★ THOMAS, George E., FN, USN, for heroic conduct in an attempt to save a crewman on board the USS *Rockwall* (APA 230) on 21 Sep 1955.

★ WHITE, Lloyd R., LT, USN, for heroic conduct on 20 Feb 1955 when a series of explosions occured on board the USS *Pomodon* (SS 486).

★ ZELIFF, Howard W., AD2, USNR, for heroic conduct in rescuing a pilot from a burning aircraft at Olathe, Kans., on 21 Aug 1955.

"For heroic or meritorious achievement or service during military operations . . ."

★ ERLY, Robert B., CDR, USN, for meritorious achievement as commanding officer of USS *James C. Owens* (DD 776) against enemy forces in North Korea from 7 to 10 May 1952. Combat "V" authorized.

★ FERGUSON, John A,. CDR USN, for meritorious achievement as commanding officer of a Patrol Bombing Squadron in Western Pacific Waters against enemy Japanese forces from 26 Apr to 1 Jul 1945. Combat "V" authorized.

★ REIFF, Delma E., HMC, USN, for meritorious service in Korea from 6 Dec 1952 to 23 Sep 1953. Combat "V" authorized.

★ SECRIST, G. H., MRFN, USN, for meritorious service in Korea from 1 to 22 Nov 1950. Combat "V" authorized.

Brief news items about other branches of the armed services.

★ ★ ★

TECHNOLOGICAL ADVANCES and years of experience have brought about a new concept of search and rescue techniques and a major reorganization in the USAF Air Rescue Service.

The reorganization places greater emphasis upon helicopters, with the general area and route search concept employing large, self-sufficient units at relatively few bases within the United States, giving way to a program of versatile air rescue detachments dispersed throughout the country. Heliocopters at 55 bases in the United States and at designated overseas bases will provide a more readily available rescue effort.

The use of the additional helicopters in the Air Rescue program will reduce the number of fixed wing aircraft now used. The cost of the operation will be reduced through the smaller number of personnel needed to operate the helicopters and the lower cost of helicopter operation.

Helicopters also will supplant crash-rescue boats in the new program.

The overseas Air Rescue Service units will remain relatively unchanged because of the greater distances and the more complex requirements involved in rescue work.

★ ★ ★

A "FLYING TEST BED" which can take off straight up and land without any ground run is being built for the Army.

The research aircraft, known as a *Vertiplane,* will be able to take off and land vertically by using the deflected slipstream principle. This involves using large propellers and double retractable wing flaps.

The Army plans to use the medium speed plane for light passenger and cargo transportation.

Like the helicopter, the *Vertiplane* can hover, make full transition from vertical to horizontal flight and fly forward, backward and sideways. It is expected to be faster, have a greater range, altitude and endurance than rotary-winged aircraft.

With the exception of its wings, the Army's new VTOL (vertical take off and landing) aircraft will look similar to most light conventional planes. Its wings have large flaps which extend far below and to the rear of the wing trailing edge. They are located in such a way that the propeller slipstream can be deflected 90 degrees during take-off, hovering and landing. For transition into horizontal flight, the flaps will retract as the plane picks up speed.

It will join the ranks of other experimental VTOL planes such as the XV-1 convertiplane developed under joint Army-Air Force contract.

★ ★ ★

WHAT HAPPENS when raindrops hit a guided missile or plane traveling twice as fast as the sound of thunder?

To find the answer, the Air Research and Development Command has come up with the fastest thing on earth —a rocket-powered sled that roars through an artificial rainstorm at Mach 2, or 1560 miles per hour. The new record eclipses a previous mark of 1280 mph, also set by a rocket sled.

The world's fastest ground vehicle has now reached Mach 2 in three different runs on a 10,000-foot experimental track at ARDC's Air Force Flight Test Center in California. Made up of a pusher and a sled, the test vehicle is propelled by 12 rockets, each developing 11,000 pounds of thrust. It is held in place on parallel rails by steel "slippers."

Five rockets on the pusher give the vehicle a speed of 620 mph in the first 950 feet of its run. At that point two knife edges on the sled cut a bronze screen stretched across the track. This breaks a circuit, sending 600 volts through the line to ignite the seven rockets on the sled. These boost the speed to Mach 2 by the time the vehicle reaches the 3800-foot mark.

For the next 1200 feet, nozzles on each side of the track create a spray equivalent to about 16,500 feet of one-inch rainfall at that speed. The rockets on the sled burn out at from 4000 to 4500 feet, but momentum continues to carry the sled through the "rain" at Mach 2. Then, at 8000 feet, the water brake takes hold and the sled splashes to a halt only two or three hundred feet from the end of the track. The entire run takes less than seven seconds, with the dash through the rain lasting only half a second.

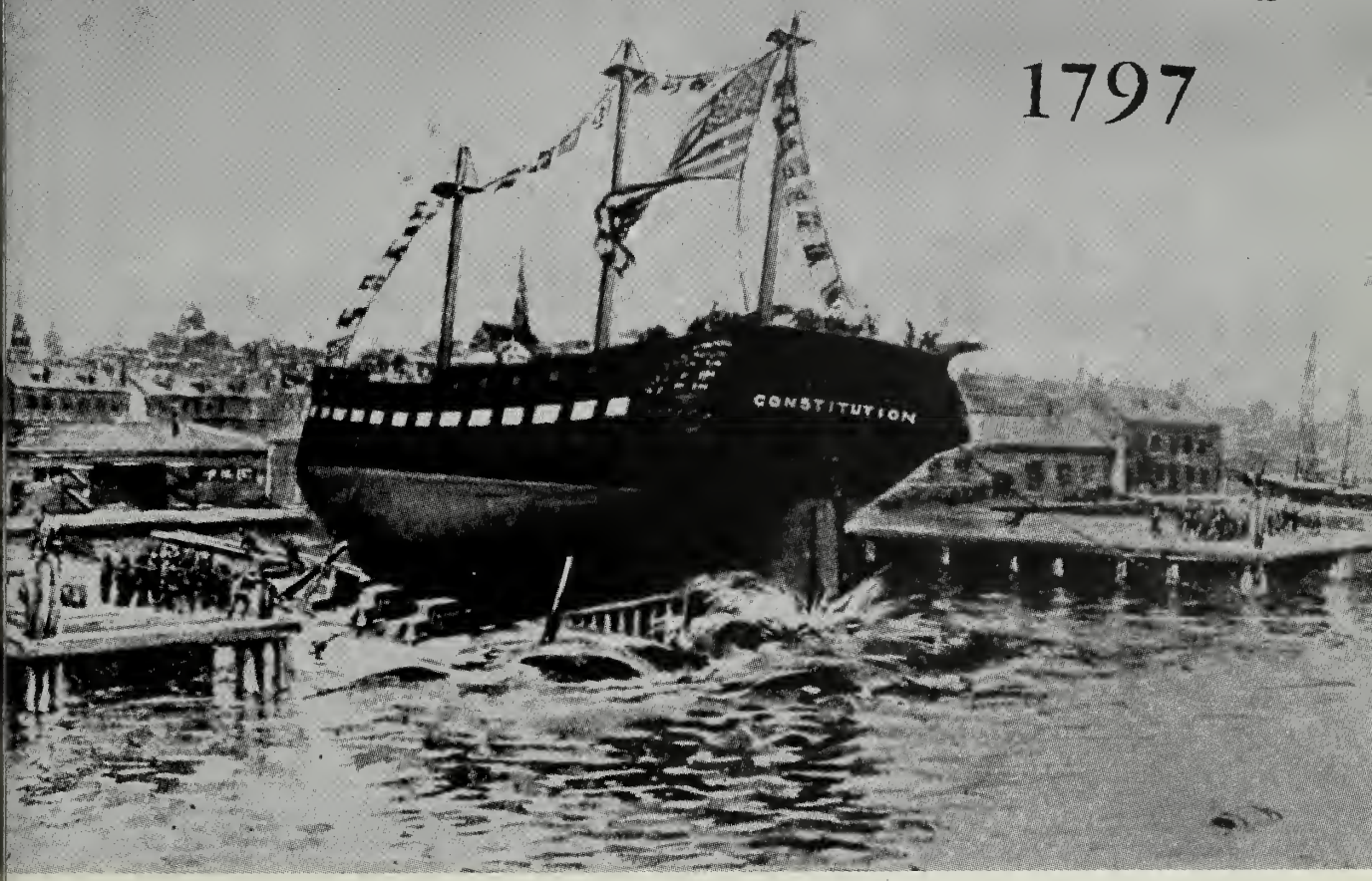
The sled was constructed this January to meet the need of full-scale rain erosion tests. In the past aircraft and missile parts were fired through a water spray, but large parts couldn't be tested this way. Now, by mounting them on the front of the sled, much larger parts can be run through much tougher tests.

SHARP ONE—Latest supersonic F-104A *Starfighter* has razor-sharp wings needing felt covers on land.

ARMY SNOW train can carry 12 tons in each trailer. All wheels are individually driven by electric motors.

SHIPBUILDING IN THE NEW NAVY

1797



An account of the construction of USS *Constitution* and the development of shipbuilding facilities in early America, including the origin of the historic Boston Navy Yard

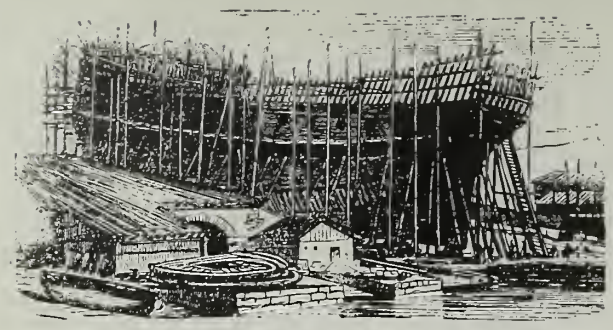
"In November 1873, when about completing a tour of duty at the Boston Rendezvous, on the solicitation of Commodore, now Rear Admiral, C. R. P. Rodgers, then Chief of the Bureau of Yards and Docks, and with my willing assent, I was ordered on "special duty" to write the History of the Boston Navy Yard, one of a series of the Histories of our several naval establishments.

"Having been much and intimately connected with the Yard at different times, in the several capacities of Assistant to the Executive, General Inspector, Equipment Officer and Commander of the Rendezvous, I undertook the task with pleasure. I was however soon ordered to the command of the Philadelphia Navy Yard and League Island Station, which interrupted and delayed the progress of my work and placed me under difficulties in gathering the necessary facts. Having promised, I felt I ought not to relinquish the task which had been assigned me, and determined if possible to complete it. This volume is the result of my labor continued amid the interruptions of official duties, and as the recreation of after-office hours." [George Henry Preble.]

From *A History of the Boston Navy Yard*, by George Henry Preble, Naval Records Collection, made available through the courtesy of the Navy Section, National Archives, Washington, D. C.

THE FIRST VESSEL of size sufficient to navigate the ocean launched from the shores of New England was "a faire pinnace of thirty tons" called the *Virginia*, which according to Strachey, was built by the Popham colony at the mouth of the Kennebec River in 1607. This was 13 years before the landing of the Pilgrims at Plymouth, and seven before the discovery of Charles River by Captain John Smith. She made a successful voyage across the Atlantic the same year, and the records of the Virginia Company mention " a boat built in the North colony" as having sailed from Plymouth in England June 1st 1609 with passengers for Virginia, which has been considered the "faire pinnace" above named.

The ship carpenter who came over to the Plymouth people in 1624 soon died, but not until he had built two shallops. One of these was employed in the fall of the next year to carry a load of corn on a trading voyage to the Kennebec River. She had "a little deck over her amidships to keep ye corne drie; but ye men were faine to stand it out in all weather without shelter." The next year they "tooke one of ye biggest of these shallops and sawed her in ye middle, an so lengthened her some 5 or 6 foote, and strengthened her timbers, and so builte her



18TH CENTURY Navy needed best wood for strong ships.

up, and laid a deck on her, so made her a conveniente and wholesome vessell, very fitt and comfortable for their use, which did them service seven years after; and they got her finished, and fitted her with sayles and anchors ye ensuing year."

This method of repairing and extending a vessel and making her convenient and comfortable will be recognized as one that has descended to our own time, and is still being practiced in our government dock yards. [See, for example, p. 64 of the May 1956 issue of ALL HANDS, in which reference is made to the lengthening by 50 feet of USS *Ulua* (SS 428).—ED.]

* * *

GOVERNOR WINTHROP sailed from Cowes, Isle of Wight, on April 8, 1630, and on Saturday June 12, he reached Boston Bay. The first important event recorded by him after his arrival is "June 17th (a day now celebrated as the anniversary of the first great battle of our revolution) went up Mystick River about six miles," and then, by a singular coincidence, he records the launch, in July 4th 1631, on the banks of the Mystick at Ten Hills Farm, of *The Blessing of the Bay,* the first vessel of the infant colony; and on August 9th "The Governor's bark being of thirty tons, went to sea." She was built by subscription and cost 145 pounds, and her owner said of her on July 16, 1636: "I will sell her for 160 pounds." From this increase of value it is evident she had suffered no deterioration from her five years' wear.

The identical ways from which the *Blessing of the Bay* was launched were in a fair state of preservation, only a few years since. She was built of locust timber, cut upon the farm. All the ships built at Medford, owing to a bend in the Mystic River, are obliged to pass within pistol shot of the old ways and place where she was built. They should salute with their flags in passing this cradle of American ship building. *The Blessing of the Bay* was converted into a cruiser against pirates, and may therefore lay claim to the honor of having been the first American vessel of war.

* * *

EDMUND HART'S shipyard [which preceded Boston's Naval Shipyard] will be forever famous as the place where the Frigate *Constitution* was built. The Harts were a family of shipwrights, besides Edmund there were Edward, Zephaniah, and Ralph the Mast-maker. Edmund lived opposite his yard, in what was then Ship street. Before the establishment of government dock yards, private yards were used for building national vessels, and Hart's went for a long time by the name of "Hart's Naval Yard." The frigates *Constitution* and *Boston* and brig *Argus,* were all built there.

In consequence of the depredation of the Algerine Corsairs, upon our commerce, an act was passed at the Third Congress, to provide, by purchase or otherwise, four ships, two to carry 44 guns, and two to carry 36. The keel of the *Constitution* was accordingly laid by Mr. Hart, in November of that year, and preparations made for setting her up.

The first official mention of the *Constitution,* by name, that I have been able to find, dated January 25, 1797, ... states: "The Frigate building at Boston called the *Constitution,* is in such a state of forwardness, that it is supposed that she can be launched in July, and it will be two months after, before she can be put in condition for sea, and to complete her exclusive of men and provisions, will require $96,671.71." The Committee (of Enquiry into the state of Naval Equipment, etc.) therefore reported a resolve to appropriate a sum sufficient to finish her and equip her for sea. The next official mention of her is in the Act of July 1, 1797, approved by President Adams, which authorizes him to cause the Frigates *United States, Constitution,* and *Constellation,* to be manned and employed.

The *Constitution* was designed by Joshua Humphries, of Philadelphia, and constructed under the superintendence of Col. George Claghorne of New Bedford. Captains Barry, Dale, and Truxton of the Navy, agreed with Mr. Humphries upon her dimensions, and Mr. Humphries prepared the drafts, moulds and building instructions.

Joshua Humphries, the Constructor, in his report dated December 23, 1794, says: "As soon as Congress had agreed to build the Frigates, it was contemplated to make them the most powerful, and at the same time the most

VIEW of the waterfront of the U. S. Navy Yard, Boston, in the 1870s. Note the Receiving Ship Ohio in right foreground.

useful ships. After most extensive researches, and mature deliberations, their dimensions were fixed, and I was directed to prepare the draughts; which was accordingly done and approved. These plans appear to be similar with those adopted by France, in their great experience in naval architecture; they having cut down several of their 74s, to make heavy frigates, making them nearly of the dimensions of those for the *United States*. From the construction of those ships, it is expected the commanders of them will have it in their power to engage or not, as they may think proper; and no ship under a 64, now afloat, but what must submit to them; these reasons are paramount to all objections, and annihilated opposition."

It was next decided, that the frames should be of live oak and red cedar, which might be computed to last 40 to 50 years. The keel, keelson, beams, Planking, etc., of best white oak, decks of the best Carolina pitch pine, under the guns of oak. John Morgan, a master shipwright of Boston, was sent to Savannah and Charleston, to procure the live oak and red cedar, and pitch pine materials, for these frigates, on a salary of $2000. The moulds for all the frigates were made in one loft, hired for the purpose, and thence shipped to the ports where the frigates were to be built.

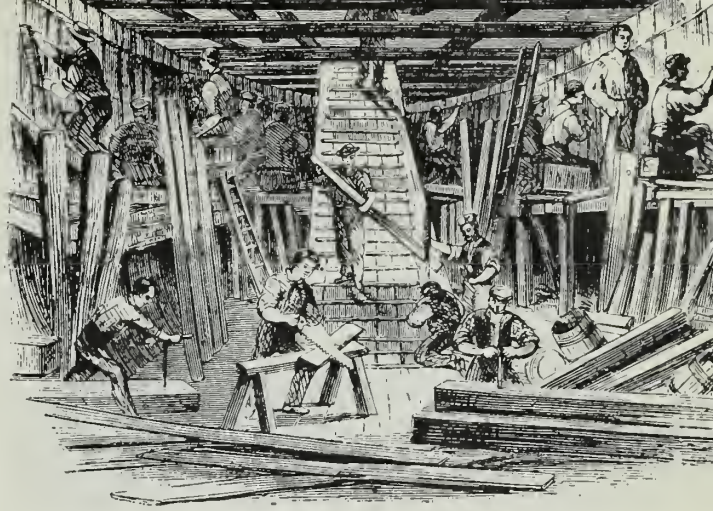
The English report, that these frigates were 74s in disguise, had therefore some foundation in fact.

The original draft of the *Constitution* was changed at the suggestion of Colonel George Claghorne, to whom her construction was confided. A portion of the timber used in her construction was taken from the woods of Allentown, on the borders of the Merrimac, 50 miles from the ship yard. Paul Revere furnished the copper bolts and spikes drawn from malleable copper by a process then new. And Ephriam Thayer, who had a shop at the South End, made her gun carriages. Isaac Harris, who worked as an apprentice in the Mast Yard, in 1797, put new sticks into the frigate during the war of 1812. To him, it is said, belongs the honor of first applying in this country the important improvement of making ship's masts in sections. He constructed the first shears, used at the Navy Yard at Charlestown, for placing the heavy masts of war vessels in position. The anchors were made in Hanover, Plymouth County, Mass. Mr. Hartley, of Boston, father of a subsequent naval constructor, assisted Colonel Claghorne, and Captain Samuel Nicholson who was appointed her first commander, exercised a general supervision. Edmund Hart was the Master Carpenter. Her sails were made in the Old Granary Building, at the corner of Park and Tremont streets, where now stands Park Street Church as no other building in Boston was large enough. The duck, for the sails of the *Constitution,* was made by an incorporated company in Boston, for which they erected buildings on a large lot in Boyleston Street, at the Corner of Tremont.

The Messrs Skillings of Boston were the carvers of the figure-head and stern ornaments, and of the cabin. She first carried at her prow a figure of Hercules with uplifted club. This was shot away before Tripoli, and seems to have been exchanged at the beginning of 1812 for a Neptune, which is alluded to in the old song:

"By the Trident of Neptune, brave Hull cried, let's steer
It points to the track of the bullying Guerriere."

She subsequently bore a plain billit [scroll head] now preserved in the Navy Yard (since removed to the Naval Academy, Annapolis).



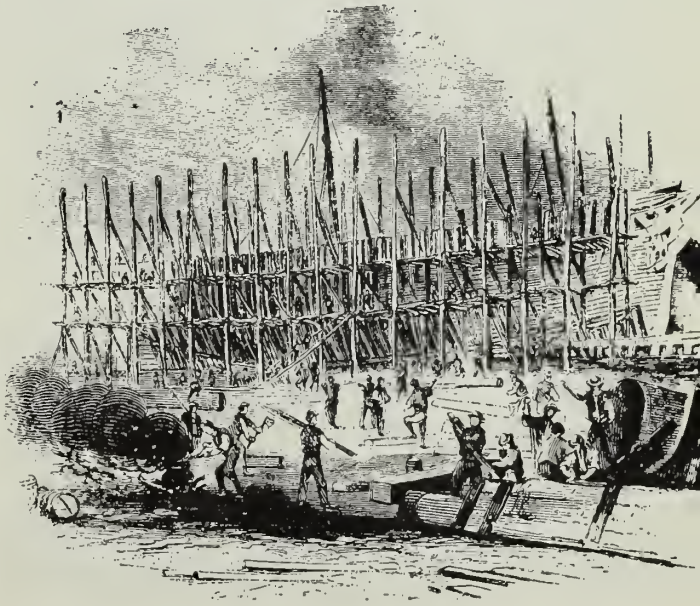
CRAFTSMEN OF 1797 used oak and cedar for interior.

The first battery of the *Constitution,* and which she carried through the war of 1812, and long after, was of English make, and bore the monogram G. R.

At length, the 20th of September 1797 was the day announced by Col. Claghorne for the launch of the *Constitution.* Commodore Nicholson who had the general superintendence of her construction, left the ship yard to get his breakfast, leaving express orders not to hoist any flag over her until his return, intending to reserve that honor for himself. Among the workmen upon her was a shipwright and caulker, named Samuel Bentley, who assisted by a comrade named Harris, bent on and hoisted the Stars and Stripes during the Commodore's absence, and thus they were first floated over that now historic ship; when the Commodore returned, and saw his order disobeyed, and his intention disappointed, we can imagine his wrath, and will believe that he expressed himself in word more strong than polite to the offending workmen.

People poured into town from all quarters to witness the launch. The day was pleasant but cold, and the

WOODEN SCAFFOLDING surrounded the growing ship.



USS CONSTITUTION'S final cruise across the Atlantic was made in 1878, after she had been partially rebuilt.

neighborhood wharves were crowded with spectators, who received warning that the passage of the vessel would create a swell that might endanger their safety. About 600 people went over to Noddles Island, where they could obtain a fine view of the launch. At high water, 20 minutes past 11, the signal was given, but the ship did not start until screws and other machinery had been applied; and then she moved only about 27 feet.

Mr. Claghorne writes the Secretary of War: "Concluding some hidden cause had impeded her progress, and the tide ebbing fast, I decided it to be most prudent to block and shore her up and examine carefully into the cause of the stopping and found that the ways which had not before received any weight, had settled about an inch, which added to some other cause, of no great importance in itself, had occasioned the obstruction." Her colors were then hauled down, and the multitude dispersed with disappointment and anxious forebodings.

The next day after due preparation, the ship was raised two inches, in 50 minutes, by means of wedges; her bilgeways were then taken out, and the apparent defects removed. All things being in order, a second attempt was made on the 22nd, and upon the removal of her supports, she moved freely for about 31 feet, and then as though reluctant to enter her destined element, stopped. On examination, it was found, the ways erected on the new wharf, which had been built for her to pass over only, and not to rest upon, had settled about one and five eights of an inch, which the descent of the ways was not calculated to overcome. The vessel might have been forced off, but the Constructor decided not to attempt a measure so hazardous.

Owing to an accident to the Frigate *United States,* launched at Philadelphia, by which she ran off the ways an hour before it was intended, damaging her keel and injuring several people, the ways of the *Constitution* had been laid too level to avoid a similar accident. Col. Claghorne, in his report says, "I had formed the inclined plane upon the smallest angle, that I conceived would convey the ship into the water, in order that she might take her plunge with the least violence, and thereby prevent any strain or injury; I must now give the ways more descent, which will remedy the defect occasioned by the settling of the new wharf; and I am fully confident that the next trial at high tide in October, will be attended with success. In the meantime, I shall proceed in completing the ship on the stocks."

Saturday, Oct. 21, 1797, a third and successful attempt was made to launch her. The day was lowering and cold, with an easterly wind and but few people assembled. Among the shivering boys who witnessed the launch, as he himself told me, was the late George Ticknor, who though cautioned beforehand was nearly swept off the wharf on which he stood by the wave raised by the descending vessel as she made her plunge into the water.

A few dignitaries, specially invited, gathered within the narrow limits of the yard. At half past 12 pm, all was ready. Commodore James Sever stood at the heel of the bowsprit, and, according to a time honored usage, baptized the ship with a bottle of choice old Madeira, from the cellar of the Hon. Thomas Russell, a leading Boston merchant. A few invited guests, among whom were some ladies, stood on the vessel's deck. At a given signal, the ship slid along the ways, and glided smoothly into, and rested gracefully upon the water, amid a chorus of cheers from the spectators.

The *Constitution,* cost when ready for sea, $302,718.84. She first moved under canvas July 20, 1798, and proceeded to sea on her first cruise, under the command of Commodore Samuel Nicholson, August 13 of the same year.

The Frigate *United States,* built at Philadelphia, cost $299,330.56.

The following detailed estimate of the expense of building and equipping a 44-gun frigate in 1798, may therefore be applied to either of these ships, launched in 1797:

Timber, and every other material of wood, except masts	$50,000.00
Labor, for building and fitting the hull and rigging the ship	80,000.00
Smith's work, including iron	21,000.00
Anchors	2,788.80
Masting	5,776.00
Sailmaker's bill	12,000.00
Carver's bill	800.00
Tanner's bill	500.00
Painter's bill	1,444.00
Cooper's bill	3,419.74
Blockmaker's bill	2,160.00
Boat Builder's bill	1,000.00
Cordage bill	37,000.00
Plumbing bill	1,444.00
Ship Chandlery bill	5,776.00
Turner's bill	577.60
Woolens for sheathing	600.00
Making gun carriages	912.00
Cannon and military stores	28,880.00
Contingencies, kentledge, camboose, etc.	18,921.81
Sheathing, copper nails, and rudder braces	20,000.00
	$295,000.00

* * *

THE SITE OF THE PRESENT [Boston] NAVY YARD.—The purchase made by the United States, for the site of the Boston Navy Yard, was originally called Moulton's Point, from Robert Moulton, a ship car-

penter who was sent out to the Massachusetts Company in 1629 as the head of six shipwrights, as previously mentioned, and was allotted that point of land, possibly because so well adapted for the use of himself and his companions. He was probably the Robert Moulton who was first a captain and subsequently a Vice Admiral under Blake in the Navy, and Master Attendant at Portsmouth Dock Yard, England. He was made a freeman May 18, 1631 and was in 1634 a member of the General Court from Charlestown, without the title of Mister.

The point was quite early selected for a fortification, and a small battery, or as it was called, a sconce, was thrown up and armed with light pieces. In 1631 it was concluded to build a fort "on the hill at Moulton's Point, and mount the six guns left by the Company last year upon the beach of this town for defense, in case ships should come up on the back side of Mystick River." However, the next year the project was abandoned. [Nevertheless] in 1634 the General Court ordered the Battery to be built, and appointed a committee to locate it, and lay out the works.

The guns were taken from the Battery in 1687, and were in 1690, on petition of the Selectmen, ordered to be restored, and the court abated its proposition of two single country rates, to compensate it for the damage done to the battery and towards repairing it. But all the guns were not replaced until 1696, when efficient measures were taken to rebuild the ancient fortification. Three sakers that had been carried away and mounted in Boston, and another piece of ordnance taken at Port Royal, were ordered to be delivered to the town officers.

In December 1730, Commissioners appointed by Governor Belcher reported that the Battery in Charlestown was entirely laid waste, but recommended it be rebuilt in the same or some more convenient place. They also reported as its armament and stores, three 18-pounders, three eight-pounders, 65 eighteen-pound shot, 10 chain shot, a lot of gun apparel, and an old shattered flag.

The guns were secretly removed from this battery by the patriots in the autumn of 1774, without exciting the least suspicion on board the British vessels of war in the stream as to what was taking place. Upon the evacuation of Boston by the British, this was one of the points which Washington directed his Chief of Artillery to occupy.

In connection with the account of the Battle of Bunker Hill, it was styled Mereton's, or Morton's Point, it being the point where Howe's main body landed that day. At noon, when it would seem that the provincials ceased to work on the redoubt, 28 barges left Long Wharf and the North Battery, then called Merry's Point, and made for Moulton's Point, the most feasible and best protected landing place. The barges were crowded with British troops, all splendidly appointed, with glittering firelocks and bayonets, but overloaded for the hot work before them and the hot sun over them, with arms and ammunition. They carried a hundred pounds of provisions, enough to last for three days.

Their regular and uniform appearance, with six pieces of ordnance shining in the bows of the leading barges, presented an imposing and alarming spectacle. A portion of this force had been retained on board of the transports and was landed for the first time in Charlestown, and the first spot of American soil upon which many of them trod, gave them their graves. This detachment landed at Moulton's Point, about one o'clock, defended by the shipping, and wholly unmolested. The lower ship house marks the beach where these choice troops left their boats.

The cannon balls furnished, by a provoking act of carelessness, were found too large for the pieces, and were at once returned and were not replaced in season for the first action.

While waiting for reenforcements, the British Soldiers stretched at their ease upon the grass, ate in peace their last meal, refreshing their thirst from large tubs of invigorating drinks, a tantalizing sight to the hungry and thirsty provincials. It was nearly three o'clock when the barges returned. The whole number of British troops landed did not fall short of, and probably exceeded 5,000.

The six pieces of British artillery [in the Battle of Bunker Hill] were stationed at first upon Moulton's Hill, of which the Point was the spur. The hill has, in the march of modern improvements, been leveled and no longer exists, but it was about 35 feet in height in 1776. Old plans and drawings show its contour. The *Falcon,* ship of war, covered the landing at Moulton's Point, and the *Lively* of 20 guns and 130 men, was anchored in front of the present Navy Yard and covered the landing of the reinforcements.

Many of the slain [in the fighting at Bunker Hill] were buried within the dock yard enclosure.

44-GUN FRIGATE, called "Old Ironsides," comes to final rest at Boston Navy Yard after a century of service.

TAFFRAIL TALK

Not long ago (in the April issue, as a matter of fact), we raised our editorial hat to publications originating in and around Adak. We pushed forth the hypothesis that "fresh, cool air" might have something to do with their real cool approach.

Now, we're not so sure. We've been enjoying the acrid comments of the *Torii Teller's* movie editor more than we do the movies. Snarls "Cinemascoop": "As sudsy a soap opera as has ever hit film. Bring your hankies (or at least a washrag)." Or: "The 'spoilers' always go around ruining things and they really do a bang up job with this one." Again: " ——— sings like a frog with a man in his throat." And: "It's (140 minutes) too long." "It has three redeeming features: two short subjects and a low admission price."

What's the mean temperature at NAS Iwakuni, Japan?

★ ★ ★

Further refreshing candor may be found at Oak Knoll, U. S.

Naval Hospital, Oakland, Calif. To improve hospital service wherever possible, every patient is invited to tell the commanding officer what he thinks about the service.

A mimeographed sheet titled "Your Reaction, Please!" invites each patient to rate the hospital on nursing care, food, courtesy, housekeeping, general atmosphere and other factors that affect the patient's health and morale. A series of faces expressing joy, less joy, indifference, mild disgust and complete despair are provided so that the patient may answer each question by merely circling the way he felt during his stay. Space for comments is also provided. The patient's reaction does not include his signature.

Hate to give *our* "patients" such an opportunity.

★ ★ ★

Our Department of Irrelevant Statistics has come up with the disturbing suggestion that time isn't what we think it is. A second is defined as 1/86,400th part of a day, as measured by timing the revolution of the earth. But someone has figured out that the earth doesn't turn at an exact and changeless rate. Early in the year it spins more slowly than it does toward the end of the year. Its rate wobbles over longer periods, too—as much as 30 seconds in 200 years. And very gradually, the earth is slowing down.

As it slows, the day lengthens slightly, and thus also the hour, minute and second. In 2000 years, the cumulative deceleration has amounted to several hours.

Seems to us that they're going to a lot of trouble for nothing. Everyone knows how time drags around 1630.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. References to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

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• AT RIGHT: GIG OF USS *Sierra* (AD 18) gets a once-over. Crew members A. L. Sievert, BM3, USN, and B. C. Brown, SN, USN, make the gig ship-shape.

FOR HEALTH and SAFETY

develop
swimming
skills

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

n this issue
CONTINENTAL
DEFENSE
TEAM

This magazine is intended for 10 readers. All should see it as soon as possible. PASS TH ONG

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SEPTEMBER 1956

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

SEPTEMBER 1956 NavPers-O NUMBER 475

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The Chief of Naval Personnel

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The Deputy Chief of Naval Personnel

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Assistant Chief for Morale Services

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• **FRONT COVER: ALERT FOR DANGER,** crew members of *USS Horveson* (DER 316) keep close watch on their early warning radar gear. DERs patrol Atlantic and Pacific as part of the nation's Continental Air Defense team.

• **AT LEFT: PENETRATION** of the Polar regions—both Arctic and Antarctic—on such projects as Operation Deepfreeze and DEW Line—in exploration, research and re-supplying—is a big job of the Navy today.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

BIG GUNS OF BB do a big job destroying enemy shore installations in Korea. *Below:* Naval Gun Factory expert sets up worn out 16-inch gun for reline job.

Meanwhile

BIG GUNS—of the 16-inch battleship size—are back on the floor of the Naval Gun Factory's Shop R-7 for the first major relining job handled by the shop in more than a decade. An indication of the size of the job now underway in the cavernous shop is given by the size of the guns themselves—roughly 66 feet in length and weighing in at 119 tons, give or take 500 pounds' variation caused by machining them "true."

Despite the size of the relining job and the number of smaller projects underway, the huge shop is deceptively quiet. The shrinkage pit, with its four vertical furnaces capable of handling any size gun the Navy has, makes no noise at all; a giant lathe chasing threads into the breech end of a worn liner and another lathe cutting down to size the outside of a forging for a new liner add a low roar to the high whine of smaller lathes machining smaller barrels and liners. An occasional racket from high overhead indicates the shifting of one of several giant overhead cranes.

Resting on blocks at various points around the shop are guns ranging in size from 3"50s and 3"70-caliber

FIERY BLASTS of heavy 16-inch shells wear down the rifling. *Below:* Gun crew secures muzzle against rain.

ack at the Gun Factory

liquid-cooled models, through 8" loose-lined guns and the 16-inchers. Some are in the shop for repair, some are so new that they haven't yet been to the proving ground for testing, and some—like the nine 16-inchers—have pulled plenty of duty in battle areas.

But to understand the relining process, you must first understand how the Navy's guns are built. Back in "wooden ship" days most guns were cast in one piece—and to make a gun stronger you simply made the walls thicker. In those days, a gun bore was considered excellent if it was less than half an inch out of true.

The following example of how crude things were can be found in the training course manual for GM3: James Watt's famed steam engine was considered a remarkable engineering achievement because the cylinder fitted to piston so closely that a shilling (a coin about the size of a quarter) couldn't be pushed between them at any point. Nowadays, of course, accuracy to the ten-thousandths of an inch is commonplace.

Early gun manufacturers in their search for greater range and accuracy not infrequently turned out guns too cumbersome to be moved into the desired position. Trial and error eventually led to the discovery that thicker metal doesn't necessarily add strength, but a new trick was applied in the latter part of the 19th century: they found that putting pressure on the outside of the barrel enabled a relatively light gun to withstand the sudden pressures of expanding powder gasses.

At first this was done by casting the gun tube, then a series of extremely tight fitting rings or jackets. These rings were heated and slipped over the gun tube, then allowed to contract. This put the gun's bore in compression.

About the beginning of World War I, it was found that the same effect could be had by taking a single steel gun tube whose bore was slightly smaller than the caliber desired, closing off both ends and filling it with hydraulic fluid under pressure high enough to enlarge the bore almost to the desired size. With the release of pressure, the outside of the gun tube tended to return to its original size, while the bore tended to maintain the increased size. These were called "self-hooping."

Such "monobloc" guns were comparatively easy to manufacture, were relatively inexpensive and light in weight; but when they wore out there wasn't much you could do except to scrap them. And when you got into large-caliber guns, the huge single forgings were altogether too difficult to nurse through the various steps necessary to turn out a decent gun. The erosion of the bore caused by repeated firing limits the accuracy life of the rifling in the Navy's present-day big guns to as little as 300 rounds. From the standpoint of cost you can't shoot your 16-incher 300 times, and then throw it away and trot out to the corner hardware store for a new one.

True, in your smaller guns you still replace the whole barrel when it becomes worn. In your larger guns, however, the part which is subjected to heavy wear (the rifling and bore) is replaceable without replacing the entire barrel. This is made possible by cutting the rifling into a "liner" which fits tightly into the gun tube, a process used in the Navy's present 16-inch guns, most of the eight-inchers and some of the five-inch guns.

These "built-up" guns have the liner as the inner layer, running the full length of the gun. The next layer is the "tube," which also runs the full length. Succeeding layers, on top of each other, are placed on the tube to strengthen the after part of the chase and the chamber itself, the sections where pressure from the burning powder charge is greatest. Each of these layers is shrunk over the layer beneath by much the same process as for hooped guns.

BIG PULL—*(Top to bottom)* Crane starts to pull liner from gun. Liner is almost out. Liner is lowered to deck.

The 16-inch guns currently "getting the works" in the Gun Factory's Building 153 were jerked off a battlewagon last year, being replaced by another set which were in storage. After relining and testing, these guns will also be put in storage to await another distress call from a battleship.

When a gun enters the shop for relining, it is first put on a giant lathe where it is carefully checked to determine if it is still "true," has not developed any droop while in use. Then the entire breech mechanism is removed, and cutting heads chase threads into the breech end of the liner. These threads accommodate the adapter or "plug" to which the overhead crane is attached in moving the gun from the lathe to the pit, and eventually will be used to lift the liner from the tube; similar threads in the muzzle end accommodate another plug to which a manifold with six fire hoses can be attached.

Next, the gun is moved by overhead crane to the "pit," which contains four giant electrical furnaces, each large enough to hold a barrel 66-odd feet in length in a vertical position. With the gun lowered into place and braced, the top of the furnace is sealed and the interior temperature raised to approximately 600 degrees. After the gun has been heated for some 40 hours, the crane is reattached to the lugs on the adapter plug, a pair of 500-ton hydraulic pressure jacks are placed between the top of the furnace and projections on the plug. Then, while six fire hoses shoot a stream of water through a manifold into the bore of the liner, the crane-jack arrangement exerts as much as 1000 tons of pressure to pull the liner from the tube.

The hydraulic jacks ordinarily do the "heavy work" in breaking the liner loose from the tube; with extremely tight liners, however, it is frequently necessary to use the combined power of the jacks and the overhead crane. If the liner still doesn't want to come free, the project is delayed for a few hours while the furnace temperature is built up close to the maximum 800 degrees. Usually, 250 to 300 tons pressure is sufficient to break a liner loose.

Once the liner has been pulled it is put aside on blocks to cool before being cut up for scrap.

When the tube itself has cooled it is removed from the pit before undergoing the next step—star-gag-

WHITEHATS machine off liners stretched by shellings. *Right:* A Navyman polishes the breech of a 16-incher.

ing the entire inner surface of the tube, with careful notation of all measurements being recorded on the Gun Record Shrinkage Sheet. These measurements are necessary so that a new liner may be machined to the dimensions necessary to fit the tube.

Meanwhile, a blank liner of special forged steel and of approximately 15" 50 bore has been roughed into its approximate shape. With the Gun Record Shrinkage Sheet as a guide, the outside of the new liner is carefully marked, then machined to fit the tube. When the liner is finished on the outside, the gun is returned to the pit and reheated. The liner, coated with graphite and filled with water, is dropped into place in the tube and held under 600 tons pressure until the entire assembly has cooled. The gun is then moved to a boring lathe, where the new liner is machined to the desired 16-inch bore.

During the boring the cut is very carefully examined, or "bore-searched," by means of a long-handled light and mirror arrangement shaped something like the little mirror the dentist uses in checking your teeth. Bore-searching detects any flaws developed or revealed by the boring process.

Next comes the machining of the chamber for the powder charge at the breech end of the bore. After chambering comes what is perhaps the most difficult part of the operation—rifling.

The right-hand rifling common to all Navy guns is cut into the 16-inch liner by a rifling head which has half as many cutting tools as the total number of cuts needed in the finished gun. The adjustable cutters literally shave the grooves into the hard steel liner, each cutter sheering away about half a thousandth of an inch of metal on each trip through the gun. Some 750 cuts are required to complete the first half of the grooves, and a similar number to complete the remainder of the gun's rifling.

Rifling is topped off by another session with the star gage, checking the grooves and lands for accuracy of cut, after the gun has been bore-lapped to remove any fouling obstructions. The star gage is a long hollow metal rod with a head which has three "points" 120 degrees apart. The spring-mounted points are linked to a scale at the other end of the rod. When the gage is adjusted to the proper diameter and inserted into the gun bore, the scale on the rear will give a very accurate measurement of the actual bore diameter inch by inch from breech to muzzle.

Several measurements at different angles cover the circumference of the gun, checking both the depth of grooves (or height of lands) and any inaccuracies in the rifling.

After lapping and successful star-gaging the gun is moved to the plating shop for a coat of chrome in the new bore.

Chrome, highly resistant to the extreme heat and pressure to which a gun is subjected, increases the service life of the new liner. As a final operation the breech mechanism is reinstalled on the gun.

From the Gun Factory, the refurbished 16-incher is shipped to the Dahlgren (Va.) Proving Ground for careful testing, before being returned to the Gun Factory for storage. Dahlgren, in addition to testing the gun at a pressure approximately 15 per cent more than that of the normal service round, prepares data from which velocity loss of the gun can be obtained at any time, provided the amount of barrel erosion is known.

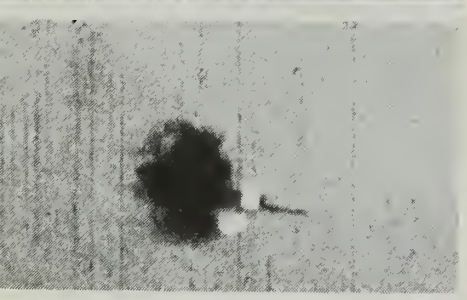
The entire relining process, as described here, sounds deceptively simple, but it isn't. The sheer weight of the guns and rough forgings makes them extremely tricky—and dangerous—to handle, even with the best of equipment.

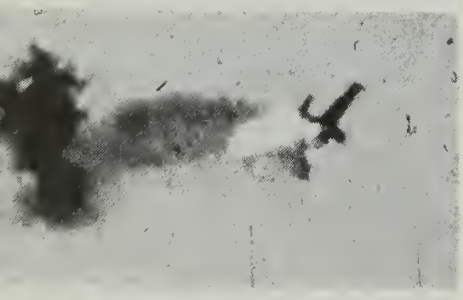
It's possible to run a rough-forged liner right down to the rifling stage before discovering a fatal flaw—that's why the rough-turned forgings are not accepted by the government until the finished gun has been proof-fired and has otherwise passed muster at the proving ground, the steel maker standing all costs for the tests.

And many Naval Gun Factory employees with the necessary experience have retired or are otherwise being lost to the shop. So the relining will be slow, compared to World War II standards. Completion of the first gun—the "pilot," in a manner of speaking—can be expected to take approximately eight months; thereafter the guns will be finished off at the rate of one a month.

—Barney Baugh, J01, USN.

WITH *SPARROW I* tucked under their wings, F7U-3M *Cutlasses* of VA 83 perch on deck of *USS Intrepid* (CVA 11).





High-Flying Sparrow

BIRD WATCHERS along both coasts of the USA were startled when they first heard that the sparrow had taken to sea. However, the subject in question will never be listed by those who watch the ways of our feathered friends.

It is the Navy's air-to-air guided missile *Sparrow I* that has reached combat readiness and has been designated operational with the Fleet as well as within shore-based aircraft.

The supersonic missile has passed its test period with flying colors and is now in production.

The thin pointed body and sharp angular "wings" of *Sparrow I* bear little resemblance to the friendly little bird whose name it has borrowed. About the only thing they have in common is that they are both relatively smaller than most members of the bird or missile family.

Attack Squadron 83 now serving on board USS *Intrepid* (CVA 11) with the Sixth Fleet in the Mediter-

AIR-TO-AIR—*Left:* Sequence shows Sparrow being launched and destroying a fast-flying target. *Below:* The new missile sits for portrait under wing.

SHE'S READY to catapult skyward.

Go to Sea

ranean was one of the first fighter groups to receive this new weapon. Pilots of the squadron were trained and qualified in firing *Sparrow I* from their fast F7U-3M *Cutlasses* before deploying from their home base at NAS Oceana. They were amazed at the missile's accuracy as they launched it against drone targets of both the reciprocating and jet type.

The little speedster has also proven to be effective when launched against other guided missiles.

The *Sparrow* is guided to its target by riding a radar beam transmitted by the launching plane. Guidance signals deflect the missile's wings and direct it to intercept the target even under evasive action.

In addition this Navy Air-to-Air guided missile can be launched singly or in rapid sequence.

Sparrow I is approximately 12 feet long and weighs about 300 pounds.

Its velocity is greater than 1500 miles per hour within a few seconds after launching.

Carried by the Navy's fast jets, like *Cutlasses* of VA 83, this supersonic missile permits an effective attack against high- or low-altitude targets. Whether attacking a lone plane or a group of planes, *Sparrow I* will ride its radar beam in to make straight for the bull's eye.

SPARROW IN FLIGHT—*Top: Cutlass* wings upward carrying *Sparrow I. Above:* VA 83 readies jet on starboard cat. *Below: Sparrow* packers sun in Med.

THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **DAMAGE CONTROL**—The words, XRAY, YOKE, ZEBRA, DOG ZEBRA, WILLIAM, ABLE and BAKER, as titles for shipboard damage control closure classifications and material conditions, will not be changed to conform with the new phonetic alphabet.

Although originally derived from the phonetic alphabet, the old titles have now been used so long in damage control that they have been synonymous with the closure classifications and material conditions to which they apply. Therefore, under OpNav Inst. 9880.1, of 15 Jun 1956, the old designations will continue to be used in all written or spoken communications dealing with these aspects of damage control.

• **PG NUCLEAR TRAINING FOR OFFICERS** — A Nuclear Engineering (Advanced) course, conducted at the Massachusetts Institute of Technology, provides an opportunity for officers to enter the Navy's nuclear ship propulsion development program.

The course, which leads to the degree of Master of Science in Nuclear Engineering, covers a period of one full academic year, with two additional summer sessions. Among the subjects covered are nuclear physics, nuclear reactor theory and engineering, and advanced courses in heat transfer and materials.

Officers in the rank of lieutenant commander and lieutenant in the Regular Navy who have the necessary qualifications for admission to the MIT Graduate School are eligible to apply for this course. Engineering experience afloat and the completion of advanced engineering studies are very desirable—but this should not be interpreted to mean that an applicant must previously have completed any postgraduate course in order to qualify.

In general, the Massachusetts Institute of Technology requires that the prospective entrant to its graduate school have a Bachelor's Degree in engineering from a recognized college and also have a well above average academic record.

The course is not restricted to engineering duty officers but is open to line officers as well. However, selection for and assignment to the Nuclear Engineering (Advanced) Course leads to automatic designation as Engineering Duty Officer upon completion. Therefore, when submitting applications, candidates must include a request for such change of designator as part of their application.

In the past, duty assignments for nuclear engineering graduates have been to billets in the Atomic Energy Commission or the Bureau of Ships. Such assignments deal directly with the development of nuclear ship propulsion plants. This has often led to further assignment to one of the AEC field areas or to private and naval shipyards doing work on this program.

Postgraduates of the Nuclear Engineering (Advanced) Course have had the challenging opportunity to contribute to the engineering development of nuclear power and its early application to ships of the Fleet. In the five years since the keel-laying of the first nuclear submarine *Nautilus*, 15 more nuclear submarines have been authorized. Of these, seven are already in construction or completed. The first nuclear surface vessel, a guided missile carrier, has been authorized by Congress which has also authorized the advance procurement of the nuclear power plant for an aircraft carrier, to be included in a subsequent shipbuilding program.

Complete details on the Postgraduate Nuclear Training Course may be found in BuPers Inst. 1520.15C.

• **SHIP'S DECK LOGS**—A complete revision to the instructions on preparation and submission of ship's deck logs and changes in the Type B deck log format have been placed into effect as of 1 Jul 1956. The revisions, taking into account the ever increasing critical paper-work burden now imposed upon the forces afloat, have been made primarily to reduce the actual paper-work which must be accomplished without sacrificing the essential, historical and legal elements necessary for a complete ship's deck log.

The Type B deck log structure has been changed to permit the use of the same binder now used for the Type A deck log and includes the use of somewhat similar loose-leaf sheets.

The use of the Type B deck log has been extended to include submarines and all smaller ships with limited facilities and small complements and those ships whose duty assignments are restricted. This will simplify its administration and will not require typing as it is prepared in original handwriting with no copies. It should result in a decrease in the over-all cost of deck log maintenance.

FOOD FOR THOUGHT—Everybody has an appetite for ALL HANDS, so pass this copy on to nine other sailors.

• **WARRANT PROMOTIONS** — SecNav has approved the list of 1805 warrant officers selected for in-grade promotions.

Among the WOs and CWOs selected for promotion during the next 12 months are 1350 Regular Navy and 455 Reserve warrant officers—including Reservists on active and inactive duty.

The Secretary's approval marks the second group of in-grade warrant officer promotions to be effected by the Navy under the 1954 Warrant Officer Act.

Permanent promotions in the regular Navy included 319 to pay grade W-4 and 101 to W-3.

Temporary promotions in the regular Navy are scheduled for 441 to W-4, 364 to W-3 and 125 to W-2.

Reserve selections, including permanent and temporary, included 289 to W-4, 161 to W-3 and five to W-2.

To be eligible for promotion, W-1s must have three years in grade, W-2s and W-3s must have six years.

• **EDUCATION FOR DEPENDENTS** — Children of deceased Navymen who died while on active duty during World War I, World War II or the Korean conflict, or who died from injuries or disease resulting from those periods of wartime service, are now eligible to receive government grants to further their education.

The War Orphans' Educational Assistance Act of 1956 (P.L. 634) offers monthly schooling payments to eligible children similar to those made to veterans under the G.I. Bill. Payments under the new law begin 1 Oct 1956 and will be paid for a maximum of 36 months of schooling.

The educational assistance payments are made to eligible persons beginning on their 18th birthday, or upon completion of secondary schooling, whichever first occurs, and ending upon their 23rd birthday.

The law provides for payments to be made to certain students beyond the age of 23 so they may finish their schooling. This applies to students who were beyond the age of 18 when the law was enacted; when the death of the parent occurred after the student's 18th birthday; and when the start of education was delayed because the student was in service.

Government allowances of $110 a month are paid to students attending school full time; $80 for three-quarter time; and $50 for half-time attendance. The rate for "co-op" courses—alternating schooling and actual experience on a related job—is $90 a month.

Another important benefit of the new law is that it provides for payments of $110 a month for special restorative training for handicapped persons.

• **COMIC CARTOON CONTEST** — Entries are still being accepted for the second annual All-Navy Comic Cartoon Contest sponsored by the Chief of Naval Personnel. All naval personnel (and their dependents) are eligible to enter cartoons. There is no limit to the number of cartoons a person may enter.

Entries should be submitted via your commanding officer, to the Chief of Naval Personnel (Attn: Pers G11).

Deadline for submission of entries has been extended to 1 November. Originally the deadline had been 1 October.

To be suitable for judging, the gag or situation cartoon must have a Navy theme or background. Naturally, each cartoon must be in good taste and suitable for general consumption.

Other requirements are that all cartoons must be drawn in black ink on 8 x 10½-inch paper or illustration board. On the back of each entry, you must give the following:

Name, rank or rate, serial or file number, duty station, home town and home town newspaper, a brief statement certifying that the cartoon is original and the statement: "All claims to the attached entry are waived and I understand the Department of the Navy may use them as desired and that they will not be returned." It must be signed by you and then endorsed "Forwarded" by your commanding officer or his representative.

Dependents submitting entries in the comic cartoon contest follow the same procedure but must also add the name, rank/rate, and serial/file number of the Navyman.

Winners of the first five places in the contest will be awarded All-Navy championship trophies. Certificates will be awarded to those getting honorable mention. Winning cartoons will appear in ALL HANDS.

QUIZ AWEIGH

1. Take a close look at the above ship. It was originally laid down as a battlewagon and although she still carries the name of a state, she has been used as an experimental ship. Enough clues. She is the (a) *USS Indiana* (b) *USS Mississippi* (c) *USS Texas*.

2. This ship, which has been placed "in commission in reserve," had the designation of BB 41. Today she carries the designation AG 128. One of the oldest ships in the Navy, she was launched in (a) 1917 (b) 1901 (c) 1935.

3. This boat, one of the newest additions to the Submarine Navy, has the hull designation of (a) K-1 (b) T-2 (c) X-1.

4. This submarine is being used to test the harbor defense installations of our coastal ports. It has a displacement of 25 tons, is about 50 feet in length and carries a complement of (a) two officers and five men (b) one officer and four men (c) one officer and six men.

5. This ship has been in the news spotlight for the past several months. You should recognize it as the (a) *USS Glacier* (b) *USS Edisto* (c) *USS Boston*.

6. Considered to be a prototype in ice breaker construction, this ship is designed to (a) drive on top of the ice and crush it by sheer weight (b) ram through the obstruction by power from her engines (c) use her forward mounts to break up the ice.

You'll find the answers to this month's quiz on page 54.

LETTERS TO THE EDITOR

What about the AL Rating

SIR: As electronics division officer of a heavy attack squadron, I have several men who hold the aviation electronicsman rating (AL) but who are acting as combat aircrewmen in our AJ-2 *Savages*. They have heard rumors that the Navy intends to reactivate the AL rating, instead of enforcing the present requirement that ALs change their rate to AT. Can you give us any information on this subject? We would also like to know if ALs will be able to advance in their rating at any time in the near future.—W. B. C., LTJG, USN.

• *Rumors about reactivation of the AL rating are just that—so far. The Bureau has received recommendations that the AL rating be retained until a determination is made as to what rating should be responsible for equipment operation in multi-place aircraft. This recommendation has been referred to the Permanent Board for Review of the Enlisted Rating Structure. Unless a decision is made to the contrary, however, disestablishment of the AL rating will be carried out as planned.*

Should the AL rating be extended pending study of the "operator" problem, it is not anticipated that any further advancements in the AL rating will be authorized. As indicated in the Bureau directive governing the consolidation of the AL and AT ratings, it is desired that personnel in the AL rating qualify for and be changed to AT. The opportunity for advancement will exist in the AT rating.—ED.

Clean Sweep

SIR: We are intending to use the phrase, "Clean Sweep," as an illustration in a speech and would like to learn its origin. I understand, from talking to naval officers here, that the phrase and the custom of lashing a broom to the mast were explained in ALL HANDS about 10 years ago. Could you help us out?—P.C.R., Atlanta, Ga.

• *Yes, we can.*

The broom business was explained in ALL HANDS' *feature, "How Did It Start?" in the February 1946 issue. For your benefit and the edification of those short-sighted Navymen who didn't enlist in time to read it before, we reprint it here:*

Lashing the Broom

When Maarten Harpertszoon Tromp, a Dutch admiral, sailed forth to meet the fleet of Cromwell he ordered that brooms be lashed to the masts in a gesture to signify that he would sweep the English Channel of the British Navy. With that order the Dutch admiral initiated action which grew into a custom of the sea through the centuries. For many years the U. S. Navy hoisted brooms at the mastheads of the ships that won the battle efficiency pennants. In World War II, submarines continued the old practice and frequently hoisted a broom on the periscope upon their return to indicate that they had made a "clean sweep," that is, that they had sunk every enemy ship they had attacked.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Allowances for CPOs

SIR: A number of men in our outfit claim that a CPO who has completed 20 years of active duty no longer counts (as far as vacancies are concerned) when advancements to chief are made. Thus, when 1000 CPOs reach 20 years, 1000 CPO vacancies are created, whether the chiefs retire or not. I say "NO." What say thou?—H.P.O., ADC, USN.

• *To thee we say yea. As long as A CPO continues on active duty with the Regular Establishment he is counted against the requirements — allowances for his rate.*—ED.

How Come That Hashmark?

SIR: Perhaps you can help me figure out the photograph on page 34 of the February issue of ALL HANDS. It shows CDR R. J. Lavery, at Yokosuka, Japan, inspecting Robert Peters, son of J. R. Peters, CE2. Robert seems a little short to have passed his physical, but that isn't what bothers me. The caption says he's two years old. Where did he get the hashmark?

I can only assume it's a "Kiddie Cruise" hashmark, but I thought they had been done away with.—F. J. P., RM1, USN.

• *The answer is simple: same place he got the uniform.*—ED.

Do Men Making WO Lose Bonus?

SIR: In July of 1955, I reenlisted for six years. Shortly thereafter, I applied for an appointment as a warrant officer.

I have been informed that in the event I am selected I will have to repay a large portion of my bonus. Is this true? I claim I will have to return none of it.—R.J.A., QMCA, USN.

• *You are correct. The acceptance of an appointment as warrant officer is not considered time lost for the purpose of repayment. Consequently, you will not have to repay any of your reenlistment bonus upon acceptance of such an appointment.*

Further information on this subject is available in the "Navy Comptroller Manual," para. 044070-4b.—ED.

Distinguished Unit Emblem

SIR: I have been unable to find any information as to whether the Army Distinguished Unit Emblem has ever been awarded to Navy units. Perhaps you can furnish me the following information:

1. Was Patrol Squadron 102 awarded the Distinguished Unit Emblem?
2. To whom can I write to establish my eligibility for the award?
3. Is there a cut-off date set on applications for the award?—R. A. C., CWO, USN.

• *Patrol Squadron 102 was awarded the Army Distinguished Unit Emblem for the period 7 Dec 1941 to 9 Apr 1942.*

If you think you rate this award, write to the Chief of Naval Personnel (Attn: Pers-E24) for determination of your eligibility. There is no cut-off date on applications for the award.—ED.

How Many Service Stripes?

SIR: "U. S. Navy Uniform Regulations," Chapter 12, Article 1203, paragraph 6(e) states that "enlisted personnel shall wear one service stripe for each full four years of service." However, one of our salty BM1s says that this should not exceed seven service stripes (28 years' service). I say that a man is entitled to and should wear one service stripe for each four years of service, that is, if he has 36 years' service he's entitled to wear nine service stripes. I believe I'm right. Who wins?—M. C. W., YN3, USN.

• *You do. In accordance with the "Uniform Regulations," one service stripe for each four years of service should be worn, and there's no restriction concerning the total number.*—ED.

Money Riding on the Books

SIR: An answer to a letter in your April 1956 issue, page 30, states that "all Navy personnel are paid in full on 30 June and 31 December so that unpaid amounts will not be carried forward to the new Military Pay Record. You are not, however, required to draw your pay at any time other than the end of these pay record periods."

Either that last sentence is misleading, or we've been following an incorrect pay procedure for a good long while.—R.W.H., DKC, USN.

• *The "Navy Comptroller Manual," in paragraph 044650, Section III, makes this statement: "If practicable, all Navy personnel will be paid in full on 30 June and 31 December so that unpaid amounts will not be carried forward to the new Military Pay Record (DD Form 113) opened for the subsequent pay record period."*

Many commanding officers have made —and continue to make—a very broad interpretation of the phrase "if practicable," thereby allowing men to let money ride on the books indefinitely.

While it is not mandatory that you draw all pay due you on 30 June and 31 December, it is highly desirable that you do so.—ED.

Transportation for Dependents, HHE

SIR: I am a PO3 who will soon have completed a four-year enlistment. I also served for a while in the National Guard. When I am discharged will I be able to send my household goods home at government expense and will I be allowed travel pay for my dependents? —C. E. S., QM3, USN.

• *You may, within certain limitations. "Joint Travel Regulations" (para. 8001-1) states that if you have completed more than four years of total service for pay purposes before the effective date of your orders for discharge, you will be allowed travel pay for your dependents and will be entitled to ship 4500 pounds, net weight, of household goods.*

If you were an E-4 on 31 Mar 1955 and leave the Navy with exactly four years' total service (or through an early discharge, less than that amount), you will be allowed to ship home 3000 pounds of household goods, but will not receive travel pay for your dependents.

In your case, it would appear the critical point is your National Guard service. If your hitch in the National Guard was creditable for pay purposes, you would have accumulated more than four years' total service. However, not all duty with National Guard units may be so considered. It is suggested that you submit an official request, via channels, to the Chief of Naval Personnel to find out if your National Guard service counts for pay purposes.—ED.

RADAR BELOW—*USS Tigrone* (SSR 419) is one of the Radar Picket Submarines converted from WW II Fleet type subs helping to watch for danger.

Dependent Stepchildren

SIR: I have two stepdaughters, ages nine and seven, for whom I am making a home. However, they are not entirely dependent on me, since my wife receives $25 a week toward their support.

How would I find out what benefits, such as BAQ, hospitalization and government transportation, I am entitled to get for them?—J.L.S., AMC, USN.

• *All naval benefits such as those you mentioned are based on a determination that your stepchildren are "in fact dependent" on you. This term is generally taken to mean 50 per cent dependent. However, in view of nonmonetary and intangible contributions which are naturally made when the stepchildren are members of your household, it is difficult to measure their expenses and their degree of dependency on you.*

To get an official determination in your case, for purposes of basic allowance for quarters, you should submit a BAQ application to the Family Allowance Activity, Cleveland 14, Ohio. To find out if your stepdaughters are eligible for government transportation or hospitalization you should write, via your commanding officer, to the Chief of Naval Personnel.

If your stepdaughters are not classified as eligible dependents, you may be authorized transportation for them to travel with your other dependents on a space-available basis.—ED.

Dependents Schools

SIR: I have just read the article, "An Education Abroad for Navy Juniors," in your July issue.

I notice that it did not mention the school at the Naval Station, Kodiak, Alaska, where I taught before joining the Navy. Can you tell me why this school was not included?—G. A. L., LTJG, USN(W).

• *The school at Kodiak was not mentioned because we were talking about educational facilities included in the Navy Overseas Dependents Schooling Program. Schools located on U. S. territory (such as Alaska) are not considered "overseas" schools. As a matter of fact, even though the school at Kodiak is located on the Naval Station, it is operated by the Territory of Alaska, and not by the Navy.*

Besides those in Alaska, other schools which do not come under the "overseas" heading are those on naval bases in the Continental United States, Hawaii, Puerto Rico, the Virgin Islands, Wake Island and Guam. These schools are administered by local school authorities or the base commander. The U. S. Commissioner of Education determines which shall have jurisdiction.

Thanks for reading the article and for pointing out something we probably should have explained in it.—ED.

Calk, Not Cork

SIR: I have argued that it is a Navy custom to pronounce the word,"calk" or "caulk" as CORK, and that this custom is similar to the Navy's pronunciation of "tackle" as TAYKLE.

However, Webster's New International Dictionary (Unabridged) does not list any such pronunciation as CORK. If, as assumed, this is a well-established custom, why doesn't the dictionary say so?—H. R. C. PHC, USN.

• *We're tickled to tackle your question, but unfortunately, your assumption is incorrect. This is not a well-established custom.*

Although "tackle" is now used by Navymen as either TACKLE or TAYKLE, the authorities whom we queried on seagoing words, terms and phraseology, say they have not heard of CORK as a proper pronunciation for "calk," and that it is not accepted as naval usage.

Furthermore, if you'll check the unabridged dictionary again under the various listings for "cork," you'll find that it calls this an erroneous usage of the word "calk."

Sorry we couldn't help you win.—ED.

Claim for Transportation of HHE

SIR: In 1945 I was assigned to FT "B" School in Washington, D. C. From there, I was ordered to shore duty in New Orleans, La. My furniture was moved by van to New Orleans, for which I had to pay $129.00 out of my pocket to the van company. Other men in my draft were reimbursed for their household effects shipment. I haven't been able to collect.

Do I still have a legal claim? If I do, how can I put in for payment?—H.L.H., FT1, USN.

• *Claims for reimbursement should be submitted on Standard Forms 1012 and 1012a to the Officer in Charge, Navy Regional Accounts Office (Code FF), Washington, 25, D. C. The claim should be supported by three certified copies of change of station orders and the bills for transportation and other services performed receipted as paid in full by the contractors who performed the services. You should also include your statement, in duplicate, giving the reasons why the services performed were arranged for by you rather than by or through a shipping officer.*—ED.

In Transit to Naples

SIR: I have just received my orders for duty in Naples, Italy. Naturally, I have a hundred and one questions about my next duty station. Here are some of the main ones I'd like information about. I'm on sea duty at the present time. Will the continuity of my sea duty be interrupted by my traveling across the U. S.? How much travel time will I be allowed and how much travel money will I get from San Francisco, Calif., to Washington, D. C.?

I will be eligible to take the examination for TE2 this August. Since I will be in a transit status when examination time comes around (I'll probably be in process at the Receiving Station, Washington, D. C.) will I be allowed to take the examination?

Does this processing in Washington include any sort of diplomatic schooling? Will I rate a clothing allowance for civilian clothes? Also, how long is the tour of duty in Naples and is it subject to extensions? – W.D.W., TE3, USN.

• *The continuity of your sea duty will not be broken by traveling through the U. S. in transit. The amount of travel time you will be allowed will depend on the type of transportation. If your travel is performed at government expense, you will receive no travel pay. However, if the travel is at your own expense, you'll receive 6c per mile.*

There will be no school or diplomatic training in Washington, D. C. Concerning examination for advancement, if you're in Washington at the time the exams for TE2 are given you will be allowed to participate.

The tour of duty in Naples is two years with a possible extension of one year. You will be quartered in barracks and may wear civilian clothes after working hours. There is no allowance given you for civilian clothing.—ED.

MSTS Space Available Travel

SIR: A visiting career appraisal team member informed one of our men that he will become eligible for space-available transportation via MSTS ships when he enters the Fleet Reserve. OpNav Inst. 4650.4, paragraph 3(2)(g) was cited as the authority.

Checking that reference I find it states "personnel on the retired lists of the Departments who are receiving retirement pay and who are not traveling pursuant to their retired orders are entitled to space-available transportation."

Since Fleet Reserve members are not actually retired, it would appear that they are not entitled to such transportation.—J.A.H., YN1 USN.

• *Your career appraisal teammate was correct. If you are a member of the Fleet Reserve, or are on the temporary disability list, and are receiving retirement or retainer pay, you and your dependents are eligible for transportation in ships of the Military Sea Transportation Service on a space-available basis. The travel rates vary and are applied to the cost of meals.*

You may not take more than one round trip per calendar year, however, and transportation of privately-owned autos is not authorized. Dependents are not eligible for passage unless accompanied by you.

Applications for MSTS transportation may be submitted to the Chief of Naval Personnel (Attn: Pers B3). The term "space-available" means space which might otherwise go unoccupied after all required travel has been accommodated, and normally, notification of a confirmed reservation cannot be made until four or five days before the sailing date. Arrangements for return space assignments must be made with the appropriate overseas command.

While MSTS ships sail to various Pacific destinations, Alaska, Newfoundland, Northern Europe, the Mediterranean and Caribbean areas, ships going to Northern Europe and the Med are not available for travel at this time due to limited space on these routes.—ED.

Development of Black Balls as Signals

SIR: Even the most nautical-minded officers and men in this *Oriskany*-class CVA are baffled by the use of "black balls" as signal devices, designating ships at anchor and so forth. Would you be so kind as to enlighten us on their origin and use?—K. M. H., Jr., HM2, USN.

• *Trying to track down the first use of "signal balls" would be an extremely difficult, if not impossible task, since marine signaling is at least as old as sailing itself. It is known, for example, that early Greek and Persian fleets used their sails for communication between the various ships—but they didn't leave us a detailed account of their signal orders.*

Day signals—flags, in particular—were in common use as early as the 13th century and by the early 17th century there were in existence signal codes which used flags, pennants and banners. Also under the category of day signals are what we call distant signals, for use during daylight hours when distance or other circumstances render the use of flag signals impossible or impractical (colors and patterns of flags are hard to determine with certainty for more than two or three miles).

These distant signals, as devised by the British for an international marine signal code in 1856 (hence probably in use somewhat earlier), consisted of shapes to be used as substitutes for letter-denoting flags. The objects chosen for this purpose were a ball, a pennant and a square flag—or objects which would approach these shapes, such as a bucket, an oar and a shirt.

In January 1901, by international agreement, a new marine signal code went into effect, but it retained various shapes as distant signals—cones, balls, drums, a square flag and a pennant.

Both the present-day U. S. "Inland Rules of the Road" (first adopted in 1897, and since amended), and the revised "International Rules" which became effective 1 Jan 1954, use such shapes as "daymarks" or distant signals. To list a single instance, the "International Rules" provide that "Between sunrise and sunset every vessel when at anchor shall carry in the forepart of the vessel, where it can best be seen, one black ball not less than two feet in diameter." "Inland Rules" require display of the "anchor ball" for vessels of more than 65 feet in length when they are moored or anchored in a fairway or channel between sunrise and sunset.

Black balls are also used to indicate such things as the following: (1) a vessel which is not under command—two black balls not less than six feet apart in a vertical line; and (2) a vessel aground—three black balls in a vertical line one over the other and not less than six feet apart.

A check of the "International" and the "Inland Rules" will reveal a number of other uses for balls, both black and varicolored.—ED.

Sea Pay in 1941?

SIR: In the answer to a letter in your May issue of ALL HANDS (page 24), you said there was no sea pay authorized for enlisted men in '41, as sea pay was discontinued in 1922 and not restored until the Pay Readjustment Act of 7 Mar 1942. I believe if you recheck your facts, you'll find that when sea pay was restored in '42 it was made retroactive to 7 Dec 1941.

Therefore, since the man who wrote you the letter had contended that sea pay was authorized in '41, I think you should have included that information in your answer.—G. S. W., YN2, USN.

• *You're right. Sea pay was made retroactive to 7 Dec 1941, under the act of '42, and we should have said so.*

This would have added a nice little technicality to our letter-writer's argument. He could claim that sea pay was authorized for at least part of '41, but his fellow debaters could argue that it wasn't actually authorized until the act took effect in '42.

Personally, we'd call it a draw.—ED.

Leave, Proceed and Travel Time

SIR: We have a question on the proper procedure for charging leave, proceed and travel time on a permanent change of station orders to enlisted personnel. Could you give us, for the three examples listed below, the proper formula for determining which is proceed time and which is travel time?

1. When the orders authorize four days' proceed time and three days' travel time, if the date detached is 1 August and the date for reporting to the new duty station is 3 August.

2. If the date detached is 1 August, the date of reporting to new duty station is 15 August, and the orders authorize four days' proceed and 12 days' travel time.

3. A man is detached on 31 January under orders which include four days' proceed and five days' travel time, but returns to his permanent duty station on 3 February, the return being directed by BuPers, the man's orders to be held in abeyance. In this case, how much proceed time and travel time should be authorized when orders are reexecuted?—J.J.M., PN1, USN.

• *According to the "BuPers Manual," Article C 5318(2), "Leave, proceed time, and travel time are charged in that order. However, only that portion of the period between stations which is not authorized as proceed and/or travel time is chargeable as leave."*

Where only proceed and travel time are involved, you would charge travel time first, then proceed time.

So the answers to your examples are:

1. 1 August is a day of duty; 2 and 3 August are days of travel time (two days). No proceed time is taken.

2. 1 August is a day of duty; 2 and 3 August are proceed time (two days); 4 August through 15 August are counted as travel time—12 days.

3. Regardless of performance of any travel, the three days from 1 through 3 February should be considered as proceed time. When orders are reexecuted the man should be authorized one day proceed and five days' travel time.—ED.

WHAT'S UP?—Radar Picket Destroyer USS *Everett F. Larson* (DDR 830) can tell. DDRs have early warning radar for long-range detection of aircraft.

Special Weapons School

SIR: I would like information on the Special Weapons School in Albuquerque, N. M. It's not listed in the regular school listings and I would like to put in for that school before my shore duty is up.—D.R.S., EMC, USN.

• *Personnel are ordered for training in Special Weapons when their particular rating is required in a Special Weapons Activity under the distribution control of the Bureau. A desire for duty in the Special Weapons Program may be indicated as a duty preference on your "shorvey" card, and will be given consideration if a need for your particular rating is required at the time you are considered available for transfer.*

The selection of enlisted personnel for duty in the Special Weapons Program is based on a careful screening of records. The minimum requirements for selection for the program and/or for assignment to technical instruction are: high school level education; GCT score of 50; excellent record of performance of duty and thorough experience in rating held; a good personal record; and thirty-six months' obligated service.—ED.

Cruise Book

SIR: I am a former member of USS *Tarawa* (CVA-40, now CVS). Where can I purchase cruise books published on this vessel since its recommissioning in 1951?

I would appreciate any further information you can give me on the preparation, financing, and distribution of these publications.—W.E.H., Saugus, Calif.

• *One cruise book of* Tarawa *covering 1951-52 was published. However, the chances are that there are no copies currently available. These books are not printed in unlimited numbers, but at the rate of, say, three for each man aboard—enough for himself, his family and a special friend. They are sold until they are gone and rarely, if ever, come out in a second printing. To find out if there is a cruise book available, you might write to the Personnel Officer of* Tarawa *(c/o FPO New York, N. Y.).*

Cruise books, incidentally, are an all-crew production. Men on board write the copy, furnish the photographs, design the layout, and provide for its financing. Commercial publishing firms print and bind the books.

Distribution is made to crew members of some ships without charge, with the ship's store profits relied upon to meet the costs. Other ships use their ship's store profits to defray part of cost and make up the difference by charging a nominal fee for a copy.—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• USS *San Juan* (CLAA 54)—A reunion will be held 13 October in New York City. For more details, write to Joe Roening, 55 Arnold Ave., Closter, N. J.

• USS *Cowanesque* (AO 79)—Former crew members and officers interested in holding a reunion with time and place to be decided by mutual consent, contact William S. Hodgetts, 29 Landing Street, Rochester 18, N. Y.

LITTLE SHIP with big job, *USS Requisite* (AGS 18), led the way for DEW Line supply ships charting safe course through ice-filled waters of unknown depths.

Requisite in DEW Line

SIR: In the past issues of ALL HANDS Magazine, it seems as though our ship has been left out in the publicity of the DEW Line Operation. USS *Requisite* (AGS 18), was the first ship to reach Shepherd Bay, the farthest point eastbound in this operation, and was the first ship in this operation to return Stateside.

Our primary mission was to chart a safe course through waters of unknown depths and relay this information to the Task Force.

While in the Arctic Region, we took samples of the mud and rock bottom, temperatures of the water, current readings and soundings.

Under the direction of an officer from the Navy Hydrographic Office in Washington, D. C., we also obtained much needed information to aid in future navigation in this area. Our ship, only 220 feet in length, encountered heavy ice barriers which caused much damage to our hull and frames.

Although one of the blades on our starboard screw was broken off by the ice, *Requisite* was able to return home safe.

Since our arrival in the States, the ship has been reinforced with new frames and skin and is preparing for another mission in the DEW Line Operation.—R.M., PH2, USN.

• ALL HANDS *always welcomes stories about ships and their operations. Your letter is the first information we have received about* Requisite. *Why don't you try your hand at writing a story about your ship's exploits in the Far North? We're more than happy to consider for publication all manuscripts and photographs submitted.*—ED.

Retesting

SIR: I came into the Navy on a four-year enlistment, which I have since extended for one year in order to get shore duty. Now I would like to ship over and attend submarine school, but I've run into a problem.

In order to attend submarine school one must have a combined ARI-MECH score of 100. If the GCT score is 55 or above, a waiver of one to five points may be given for the combined ARI-MECH. My GCT is 52, but my combined ARI-MECH score is only 86—14 points short—so the waiver wouldn't do me any good even if I could get it.

After checking my standing on the score requirement, the personnel officer here has refused to send my submarine school request to the Bureau. What I want to know is this: How can I get around that score requirement, so that the personnel officer will forward my request to the Bureau?—G.F.S., SO2, USN.

• *As the song says, "You can't get around it, you gotta come in at the door." So the thing for you to do is raise your scores (or try to raise them) by requesting to retake the Navy's Basic Test Battery.*

The following information must be contained in your request (which your personnel office can help you prepare):

1. Purpose for which retesting is desired (in your case, to meet eligibility requirements for submarine school).

2. The date on which you were originally tested, and all classification test scores recorded in your service record as a result of that initial testing. Also, if you have previously been retested, that date and the recorded scores must be listed.

3. A rundown on the formal schooling completed before you first took the

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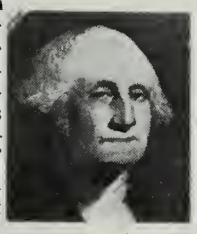
Father or Not, COMO John Barry Holds Firm Place in U. S. Naval History

SIR: I have been rereading the article on "Men Who Made Naval History" in the December 1955 issue with considerable enjoyment and interest. It was a job that was well done, and one that has needed doing for some time. Customs and traditions are still among the most effective guides and motivation factors we have.


George Washington

The summary on John Barry, under his picture on page 32, was disappointing, however, Commodore Barry is known as the "Father of our Navy," but one would hardly suspect it from your writeup. It is my impression that Barry received Commission No. 1 in the Navy, so to state that he was one of the first men to be commissioned is misleading. He *was* the first. Also, being "instrumental in encouraging construction of naval vessels" would not qualify him for the title "Father of our Navy." No indeed, his courage and tactics, determination, tenacity of purpose and love of country were the attributes that endeared him to all. I also question the statement that he was the Navy's third commander-in-chief. — E. J. Shaughnessy, CDR (SC), USN.

• *Commander, we do not begrudge Commodore Barry his "first," but we feel—quite properly, we think—that the Navy originated with the Continental Congress (to say nothing of the various state marines and Washington's little fleet). Therefore, we felt justified in calling Barry "one of the first men to be commissioned" and in not mentioning his claims to the title "Father of our Navy."* (But see page 39.)

Our source for the statement that Barry was the Navy's third commander-in-chief was Hamersly's Naval Encyclopedia, *published in Philadelphia in* 1881. *In the main, we have found Hamersly to be quite reliable, so perhaps we weren't sufficiently critical of the entry under Barry's name. Even so, Esek Hopkins was appointed commander-in-chief of a specific fleet (although not of "the fleet" in general) by Act of Congress of* 22 *Dec* 1775—*and we have already stated our position on the true beginnings of the Navy.*

In March of 1776, *John Barry was commissioned a captain in the Continental Navy. When a precedence list was issued in October* 1776, *Barry stood seven on the list of captains.*

Commodore Barry did hold Commission #1 after the Navy was reorganized in March 1794, *leaving little doubt about his relative standing at that time. However, the letter of notification written to Barry by Henry Knox (Then Secretary of War) on* 5 *Jun* 1794 *merely stated that "the President of the United States by and with the advice and consent of the Senate has appointed you to be a captain of one of the ships to be provided in pursuance of the act to provide a naval armament." Washington himself presented the commission to Barry on* 22 *Feb* 1797. *That commission (which may be seen at the Naval Academy Museum) appoints Barry "Captain in the Navy of the United States, and Commander of the Frigate called the* United States; *to take rank from the fourth day of June, one thousand seven hundred and ninety-four." So not only was Barry not third commander-in-chief, he was never commander-in-chief of the Navy.*

Note, however, that your unabridged Webster's Dictionary lists the military and naval definition of "commission" as "a certificate conferring military or naval rank and authority on officers above a certain rank." In the Journals of the Continental Congress for 2 *Dec* 1775 *you will find the Naval Committee authorized to "prepare a proper commission for the captains or commanders of the ships of war in the service of the United Colonies." The committee furnished its various naval boards with blank warrants and commissions, signed by the President of Congress, to be filled out by the board for each officer appointed, thus insuring that the validity of his title and rank could not be questioned.*

COMO John Barry

While it is true that Barry is generally accorded the title "Father of our Navy," it is also true that others have been accorded the same title. To cite a single instance, John Adams considered naval legislation enacted on 25 *Nov* 1775 *"the true origin and foundation of the American Navy." And Adams felt that he himself "had at least as great a share as any man living" in the foundation of that Navy. Yet when he was called "Father of the Navy" he saw fit to disclaim the fatherhood of anything except his own children. One can also make a very convincing case for assigning the title to George Washington.*

As you suggest, Barry's claim to the title appears to rest on his personal attributes and on his services in the training of future naval leaders. For instance, the influential Philadelphia magazine Port Folio *stated during the War of 1812 that "so many of the distinguished naval men of the present day commenced their career under Commodore Barry that he may justly be considered as the Father of our Navy."*

John Adams

And the report of Barry's funeral in the Aurora, *a Philadelphia newspaper, on* 17 *Sep* 1803, *would seem to bear this out:*

"Our infant Navy is also much indebted to his fostering care; it was ever his pride to establish its respectability in all quarters of the globe; and America may boast that most of the officers she now possesses were reared under her gallant Barry; and I trust, should that era arrive when it shall be necessary to exert her naval force, she will show that the bravery and experience of a Barry has descended to his children." (Barry called all of his officers his children.)

In short, if any one person deserved such a title, Barry is a leading candidate.

To top this off, here's an up-to-date note on the Commodore: Under appropriations authorized by the 77*th and* 80*th Congresses, a monument to Barry's memory has been designed and recently completed. The monument is the work of the eminent New York Sculptor, Wheeler Williams, and will be presented to the City of Wexford, in Barry's birthplace of County Wexford, Ireland. It was cast in Somerville, Mass., and has been transported to Ireland for unveiling this month. For more on John Barry see the article on page* 39.—ED.

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test battery and the date such schooling was completed.

4. A list of the schooling and experience you have had since the date you first took the classification tests. This would include naval and civilian schooling taken, USAFI courses completed, other correspondence courses completed, on-the-job training, etc.

5. Other pertinent information concerning conditions under which previous testing was accomplished which would have a bearing on the request for retesting. An example of this would be a language difficulty.

Finally, if you initiate the request, your commanding officer's forwarding endorsement should indicate his evaluation of the merits of the request. This evaluation should be in basic request if command initiates request.—ED.

INTER-SERVICE TEAMWORK of CONAD protects nation. *Left:* Navy patrols sea. *Rt:* AF pilots scramble to intercept.

CONAD: An Inter-Service Team

"TWIG, this is Victor 2. Bogey 1, course 360, speed 400, angels 5. Bearing 060, range 90. Time 1950, Zulu."

A message like this one, passed from an airborne combat information center far out over the ocean to a Stateside air defense control center, may be the means of saving your life or the lives of your family.

Such transmissions are common occurrences aboard certain Navy planes nowadays—but so far the "bogeys" have been friendly planes, quickly identified from flight plans filed with CONAD, the nation's Continental Air Defense Command. These aerial watchdogs are WV-2 *Super Constellations*, outfitted with a mass of radar gear and assigned the monotonous—but highly important—job of extending our nation's defenses against sneak attack.

These flying radar installations are just one of the Navy's many contributions to a system which unites sailors, soldiers, airmen and civilians into an airtight defensive organization along North America's air frontiers.

This system of defense against surprise attack is the responsibility of the nation's youngest military organization, and it is an outstanding example of joint Army-Navy-Air Force and coordinated civilian effort.

CONAD's mission can be simply stated: "Defend the United States against air attack." Carrying out that mission, however, is a vastly complicated business. In brief, here's what each of the four main forces contribute to that mission:

- The Navy supplies and mans the radar picket escort vessels, ocean station radar ships and many of the WV-2 "Flying CICs" which form the seaward perimeter of the defense system. The Navy's Bureau of Yards and Docks is supervising construction of radar "islands" off the Atlantic coast, and Navymen and Navy ships break the Northern ice floes to supply the "Dew Line"—the Distant Early Warning Line of radar installations along the Arctic Circle. Navy fighter-interceptor planes are assigned to CONAD for duty and others can be made available on short notice.
- The Army's primary contribution to CONAD is the manning of antiaircraft installations and Nike missile batteries around our major cities and "critical" target areas.
- Civilian participation in the nation's defense system is represented by the Ground Observer Corps, made up of volunteers who scan the skies for low-flying aircraft and check to be certain that they are friendly.
- The Air Force, with its complete facilities for air warfare, supplies the basic organization for the Continental Air Defense system.

Before taking a look at the various elements which operate under CONAD, it might be wise to examine briefly the command structure of the "unified" organization.

Heading this new military force is Air Force General Earle E. Partridge who has operational control over all forces assigned to CONAD and is responsible directly to the Joint Chiefs of Staff. CONAD headquarters, at Ent Air Force Base, Colo., includes the chief of the Army's antiaircraft command, Lieutenant General Stanley Mickelson, and Rear Admiral Hugh H. Goodwin, who heads all Navy and Marine

ALERT SENDS Army *Nike* men into action. *Right:* Civilians in Ground Observer Corps form important part of defense.

Geared for Continental Defense

forces allotted to the air defense organization.

Then, the continent is divided into three defense regions, each with a joint air defense force under an Air Force commander who has the same operational control over the combined forces in his command that the chief officer of CONAD has over the whole. In turn, the three regions are divided into sixteen air divisions, each exercising control over all air defense units within its area.

These divisions either perform or supervise all measures necessary for adequate air defense—operation of radars and fighters, allocation of forces, implementation of security control plans and activation of warning networks. A control center in each division plots all interceptions and reports of hostile aircraft.

In carrying out its assigned mission, CONAD divides its operations into four distinct phases: 1) *detection,* 2) *identification,* 3) *interception* and 4) *destruction.*

Detection of all aircraft approaching the North American continent is of primary importance in accomplishing CONAD's objective. Volunteers in the Ground Observer Corps organization join with the artificial "eyes" of a huge radar network in performing this vital first function of CONAD. Long before the sky scanners of the Observer Corps go into action, however, radar will have spotted the intruders.

Perhaps the first warning will come from one of the following "fences" stretching across the northern continent:

- DEW Line, which is the nickname for the Distant Early Warning Line of automatic, semi-automatic, and manned radar installations in operation or abuilding in the Far North. This line stretches from Cape Lisburne, Alaska, to Baffin Island, and (like its companion lines) is a joint project of the United States and Canada.
- Mid-Canada Line, also known as the McGill Fence, is a radar installation system stretching from coast to coast along the 55th parallel, just north of the settled territory of Canada. Canadian troops are manning this chain of semi-automatic and automatic radar stations.
- Pine Tree Line is the name applied to the main control and warning radar installation, which roughly parallels the U. S.-Canada border and is jointly operated.

Each of these radar "fences" has a different function. DEW Line shouts the first warning of approaching aircraft, alerting defense forces and providing the first information about the unidentified intruder.

The Mid-Canada Line furnishes a second set of data on direction, speed and altitude, enabling plotting centers across the continent and at CONAD headquarters to figure out what the enemy is most likely to do.

As the bogey comes within range of Pine Tree, along the U. S.-Canada border, radars are ready to start tracking the enemy craft as they begin converging on their target.

Extending these lines to seaward —covering the northern flanks of our continent as it were—are the Navy's radar escort picket vessels (DER) and ocean station radar vessels (YAGR), in addition to radar-equipped aircraft, lighter-than-air craft and "Texas Towers." The Navy's largest role in CONAD is to be found in this seaward exten-

NAVYMEN of WV-2 *Super Constellation*, airborne CIC, send message while on Atlantic patrol. Both Navy and AF keep watch with these planes.

sion of our nation's defenses.

Athwart the broad mid-ocean approaches of the Atlantic and Pacific are the lines of ships and planes ready to give early warning of possible bogeys. Closer inshore other ships and planes (plus Texas Towers in the Atlantic) provide a second set of references on approaching aircraft.

Perhaps the most unusual of the Navy's contributions to CONAD's chain of "eyes" are the YAGRs—the lumbering Liberty ship merchantmen of World War II which have been adapted to the service of detecting high, fast aircraft (see page 25). They share with DERs (see page 20) the mission of maintaining stations along the Atlantic and Pacific coasts, thereby extending the land "contiguous radar," and have been modified accordingly. Their wide, deep holds have become spacious areas for living, recreation and other special equipment requirements.

During their tours on station the DERs maintain constant contact with the nearest shore radar station, while scanning their radarscopes for anything that doesn't appear on prearranged flight plans of all commercial and military aircraft. Flashing a warning which will bring all-weather fighters from the nearest interceptor base is a matter of minutes.

"Flying CICs"—WV-2 *Super Constellations* well endowed with radar and other detection devices—will soon be on station as another part of the Navy's contribution to the nation's continental air defense network. These giant four-engined craft, each outfitted with the latest in airborne radar gear, are capable of picking up enemy aircraft at distances well over 100 miles. When flying "on station" at a height of 10,000 feet, the planes can cover in one sweep a surface area of 45,000 square miles.

These Super Connie CICs are manned by 26 men and have a dual mission in their early warning role: 1) to give an earlier warning of an enemy's sea or air approach than is possible by any other method; and 2) to track any targets and direct defending craft into position to destroy the invader. While performing their early warning duties the planes maintain contact with shoreside air defense control centers, reporting all contacts and the results of IFF signals. Similar planes are being operated by the Air Force.

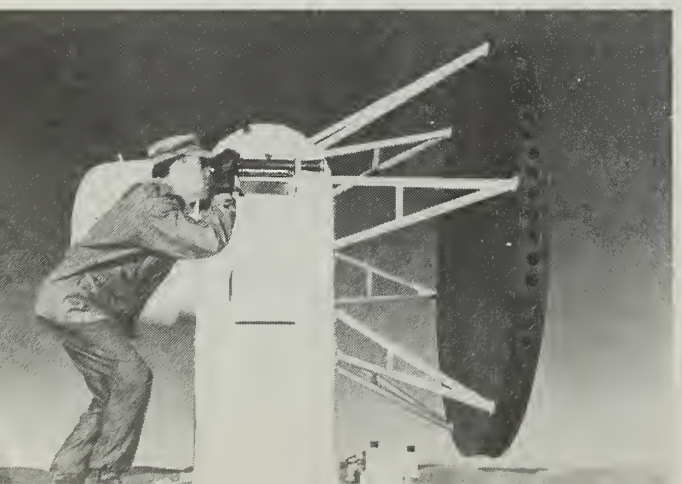
Also part of the seaward extension of the nation's radar defenses are the "Texas Towers" being built for the Air Force under supervision of the Navy's Bureau of Yards and Docks (see page 26). Named for offshore oil rigs along Texas' Gulf coast, these towers provide permanent early radar warning stations approximately 100 miles off the Atlantic coast.

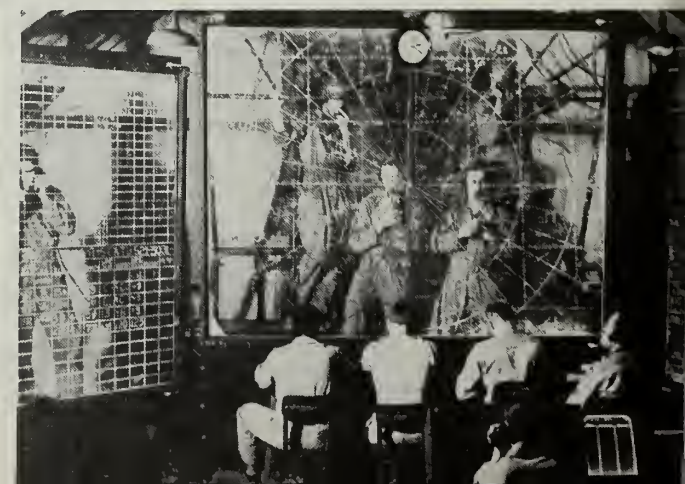
This giant net—the three radar fences and their seaward extensions, plus other radar installations inside the U. S.—gives CONAD good high altitude coverage over a large portion of the northern continent. A 24-hour "skywatch" maintained by volunteers of the Ground Observer Corps affords a widespread system of low-level detection within the U. S. itself.

Identification, the second phase of CONAD's operation, is enormously complicated by the number of scheduled flights crossing our coasts and within the continent itself; this situation has been somewhat simplified, however, by placing most flights under a tight system of controls.

For this purpose three types of Air Defense Identification Zones (ADIZ) have been set up; 1) Inter-

ARMY MISSILE MAN checks radar before *Nike* firing. *Right:* AF ground intercept units like this direct planes to target.





DEW LINE—Navy ships bring in supplies during Arctic storm. *Right:* Members of CONAD team climb to radar station.

national Boundary ADIZ, along the Canada-U. S. border; 2) Coastal ADIZs along both coasts; and 3) Domestic ADIZs, around critical target areas within the United States. Planes which intend to enter or cross any of these areas are required to file flight plans in advance —plans which can be matched with radar tracks either to identify the plane or to set off a quick scramble by interceptors.

Further protection is provided by improved versions of electronic IFF, the World War II system of Identification Friend or Foe, and a system of fixed "air corridors" along which airlines are required to fly in accordance with prearranged flight plans.

Interception of unidentified or hostile aircraft is the duty of fast, all-weather jet fighter-interceptors, capable of intercepting and destroying a target while flying on instruments. When aircraft are spotted, but cannot be readily identified by other means, such planes as the F-86D *"Sabrejet,"* the F-89D *"Scorpion,"* the F-94C *"Starfire"* and the Navy's F3D *Skynight* take to the air for a visual inspection of the interloper. (A Navy fighter squadron of F3Ds, based at San Diego, is on immediate call from CONAD to handle intercepting duties.)

CONAD's combat-ready fighter force is strategically located throughout the country on bases within easy reach of critical target areas and our perimeter defense line. Fighters of other Air Force commands, the Navy and the Reserve Forces are available for emergency use. And during an emergency, the naval representative at CONAD headquarters will be able to call on fighter power at naval air stations or aboard carriers.

Destruction of any hostile aircraft would be carried out by the interceptor-fighter aircraft, or fire from the Army's antiaircraft installations, including the Nike missiles which now defend many of our more important cities and industrial areas. Aerial rockets and refined radar control give the fighter-interceptors a distinct advantage over attacking bombers, while Army's ack-ack command has added the new electronically-controlled *Skysweeper* cannon to its battery of weapons defending heavily populated areas and industrial sites.

The CONAD organization, as well as its operational concepts and functions, have been built up on the supposition that simultaneous, widely diversified air attacks can be directed against any or all of the major targets within the United States at any given time—and that such attacks are likely to come from the north. Adoption of the motto "Be Prepared" in setting up adequate defenses against such attacks serves the double purpose of acting as a deterrent to attack, and of minimizing the inherent advantage of surprise if such an attack were undertaken.

The final measure of protection is afforded by a system of communication and alerting procedures capable of passing warnings throughout the country in a matter of minutes. When it appears necessary, CONAD can announce a condition of air defense warning to the Federal Defense Administration. A similar but separate system has been set up to notify key military installations.

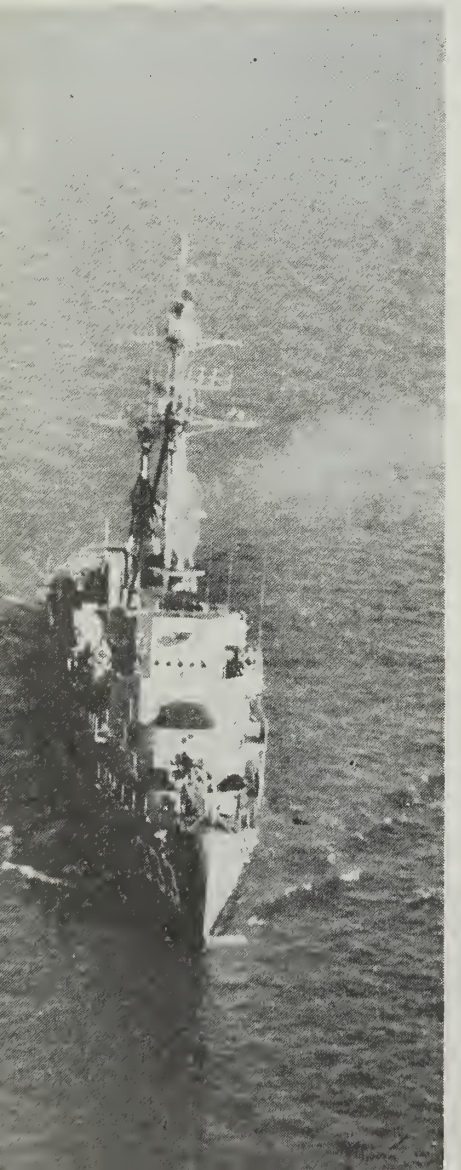
An additional warning condition, applicable only to the active air defense system, is Air Defense Readiness. Normally initiated as a result of suspicious patterns or actions of incoming unidentified aircraft, it is a means of placing all available air defense forces at maximum immediate operational capability. Another plan, called "SCAT," establishes procedures and instructions for security control of civil and non-tactical military air traffic during an emergency.

This gigantic and complicated web of defense is CONAD. And on the following pages you'll see more of the Navy's role in defense against air attack.—Barney Baugh, JO1, USN.

OCEAN LISTENING POSTS—YAGRs converted from WW II Liberty ships share with DERs mission of patrolling Atlantic and Pacific on lookout for danger.

ON GUARD—USS *Harveson* (DER 316), *USS Strickland* (DER 333) *patrol.*

RADAR PICKETS



"RADAR PICKET ESCORT VESSELS, at the present time, are the most important ships in the U. S. Navy."

That's quite a statement, but when quartermaster third class Roy A. Trotter and Jerry Halbrook, ET3, both crew members of *USS Harveson* (DER 316)—the first DE converted for radar picket duties—made the claim, they were not just "sounding-off." Both were speaking from experience and have good reasoning to back them up.

"After all," they say, "what other type of ship in the Navy today is actually performing its regular mission on a round-the-clock basis. Practically all other ships are engaged in peacetime training while we (the DERs) are more or less on a wartime basis, conducting our primary mission at all times."

Such opinions are shared by the majority of those who man the "eyes and ears" not only of the Fleet, but also of the nation. Typical of this attitude is that of a tough old seadog—boss of the Atlantic Fleet Destroyer Force and one who does not offer praise lightly. He said, "I have been in the Navy for many years but I'm still deeply impressed by the amazing spirit with which our men have taken over one of the most exacting and important of our peacetime jobs."

In making this statement, RADM John C. Daniel, USN, added, "I refer, of course, to the maintenance of our picket radar stations off our coastal waters. It is a real tribute to the officers and petty officers that, in spite of this monotonous, uncomfortable and sometimes dangerous duty, all hands remain tops in spirit and efficiency."

Who can speak with more knowledge or authority about the DERs and this type of duty than ComDesLant himself? He has been around for quite some time and knows them inside and out.

RADM Daniel first became acquainted with radar picket ships the hard way—off the coast of Okinawa near the end of World War II, when lonely little DEs with hastily improvised radar gear attempted to warn the Fleet of approaching Kamikazes and, at the same time, duck the swarms of enemy pilots bent on suicide. He earned a Navy Cross for duty as officer in command of a radar picket station unit at that time and his admiration of the tough little featherweights—and those who man them—remains undiminished to this day.

What's so precious about DERs and why should they be selected for this unusual praise from those who man them? Why are they different from other types of destroyer escorts and why do their crews take such pride in duty on board them?

DERs are basically DEs. In fact, they are former escort ships converted for radar picket duties. In addition to the conventional armament for action against hostile surface, undersea and air attacks, they are equipped with a large amount of the latest radar equipment which enables them to detect aircraft at long ranges.

These radar picket escort vessels, serving on lonely stations far out at sea in all kinds of weather, form an essential link in the Continental Air Defense Command system. They extend the nation's early detection seaward, far beyond the reaches of shore-based radar.

At present there are 18 DERs operating with the naval forces of the Continental Air Defense Command. Of these, six are assigned to the Pacific and 12 are in the Atlantic.

ON SEA PATROL

Six of the 12 East-Coast-based DERs of Escort Squadron 16, USS *Joyce* (DER 317), *Harveson* (DER 316), *Fessenden* (DER 142), *Otterstetter* (DER 244), *Kirkpatrick* (DER 318), and *Strickland* (DER 333), have been performing off-coast picket operations since 1952. They are the old timers—the first.

In 1955, Escort Squadron 18 was established as part of the Atlantic Fleet when six more DEs were converted to DERs to help elder brothers maintain station. They are: USS *Chambers* (DER 391), *Pillsbury* (DER 133), *Rhodes* (DER 384), *Calcaterra* (DER 390), *Wagner* (DER 539) and *Vandivier* (DER 540).

Maintaining recently established "DER" stations in the Pacific are: USS *Falgout* (DER 324), *Lowe* (DER 325), *Koiner* (DER 331), *Savage* (DER 386), *Haverfield* (DER 393) and *Wilhoite* (DER 397).

In addition to the 18 DERs currently on station off the East and West Coasts, 12 more are undergoing conversion and will soon add considerable strength to the nation's early warning detection system. Of these, USS *Finch* (DER 328), *Forster* (DER 334), *Roy O. Hale* (DER 336), *Vance* (DER 387), *Lansing* (DER 388), and *Durant* (DER 389) will go to the Pacific; while USS *Camp* (DER 251), *Sellstrom* (DER 255), *Brister* (DER 327), *Kretchmer* (DER 329), *Price* (DER 332) and *Hissem* (DER 400) will scout additional Atlantic stations.

With the exception of *Wagner* and *Vandivier*, all of the DERs now serving in the Atlantic saw duty in World War II as escorts, and many of them have outstanding records.

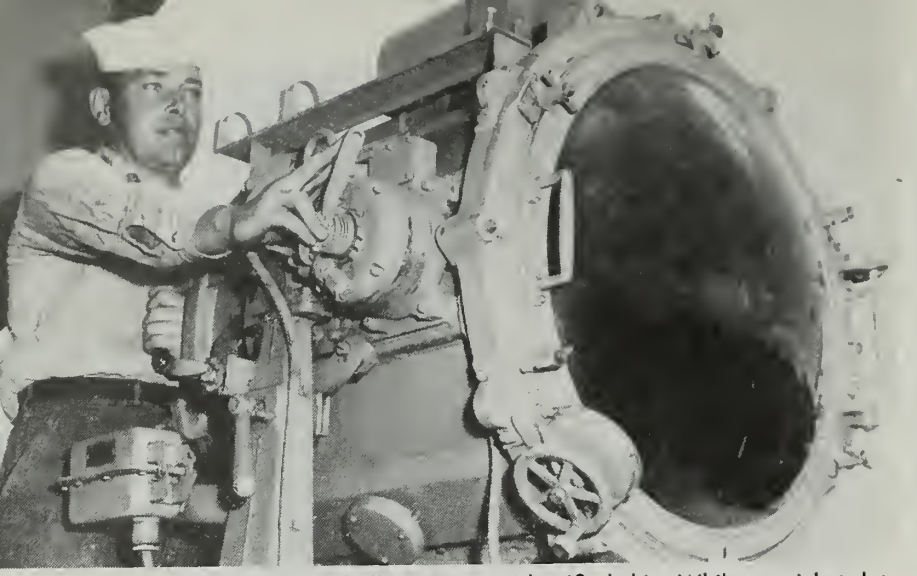
It was *Pillsbury*, for example, who in World War II assisted in the sinking of two German submarines and it was a boarding party from this ship that went aboard U-505 after depth charges brought her to the surface. *Pillsbury* then steamed more than 2500 miles with the German sub in tow. For that action, she received the Presidential Unit Citation.

Kirkpatrick escorted 11 Atlantic convoys during WW II; *Harveson* chalked up 10 convoys; *Chambers* put in two and one-half years of convoy duty during which time she escorted 16 convoys during the North African and European campaigns; *Calcaterra* is also a veteran of 16 transatlantic convoy runs. *Fessenden* was credited with the sinking of an enemy submarine while part of a hunter-killer group with USS *Mission Bay*, now CVU 59.

It was *Joyce* who served as a rescue ship when USS *Leopold* (DE 319) was torpedoed and sunk in 1944. Twice, while dead in the water picking up the 28 survivors, *Joyce* had to get underway to dodge torpedoes fired at her. It was on her next crossing that *Joyce* became something of a floating hotel as she

RADARMAN plots bogey in CIC and (*below*) DER's course is plotted while USS *Harveson* cruises on station.

DURING CONVERSION from destroyer escorts, DERs received the maximum in modern living at sea. Here, Navymen get ready to enjoy TV in lounge.



SIGNAL SEARCH LIGHT challenges an unidentified ship. While on picket duty DER men keep watchful eye on surface of sea as well as over and under it.

picked up 31 survivors of ss *Pan Pennsylvania,* one of the world's largest tankers, after that ship had been torpedoed and set aflame. And it was *Joyce* that located the sub by sonar and brought it to the surface by a pattern of depth charges. With the aid of uss *Peterson* (DE 152) and *Gandy* (DE 764), she forced the enemy crew to abandon and scuttle the sub. Twelve of the German crew, including the U-boat's captain, were picked up by *Joyce.*

With their WW II jobs completed, these escorts were placed in mothballs. They remained in the Reserve Fleet until 1950 when the challenge of air defense required these proud little ships to serve again.

From their peaceful nesting places, the DEs were towed to shipyards where they underwent extensive modification and emerged as floating radar sets. While undergoing conversion, the ships' nerve centers—combat information centers—were enlarged to handle the added information to be fed by the new air search, height-finder and surface-search radar.

In addition to the electronic detection devices, more communications equipment had to be installed to handle voice radio and ship-to-shore communications between the shore-based aircraft control warning stations.

Much of this gear was put into what earlier were messing and berthing spaces. This meant, in turn, that the center portion of the main deck had to be enclosed and a superstructure added to provide more and spacious living quarters for the 150 enlisted men and 19 officers.

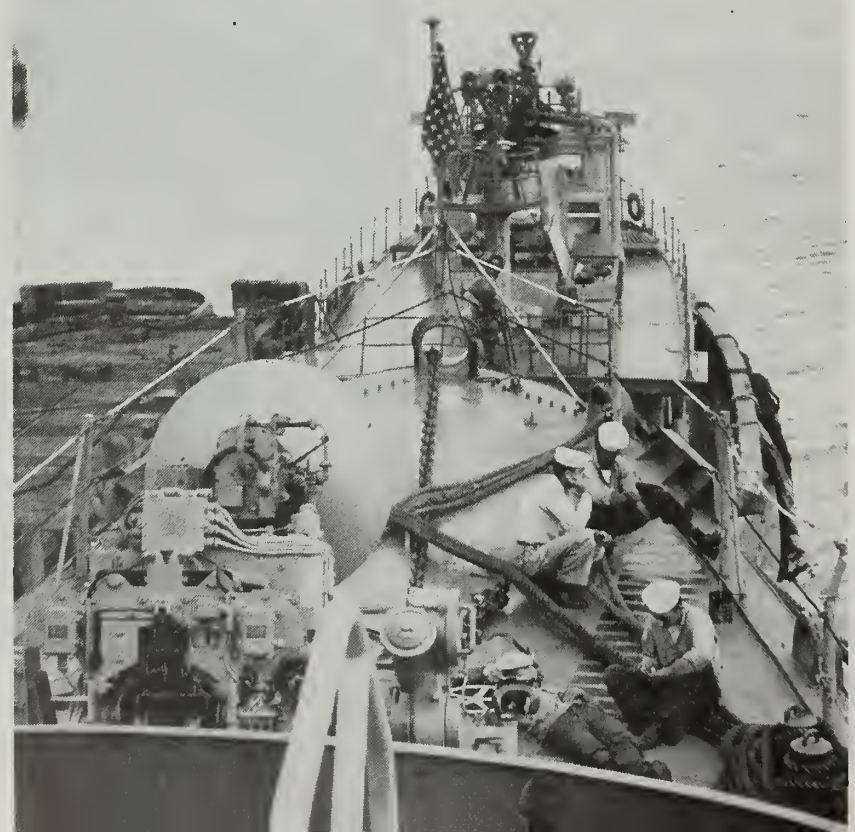
These modifications added more than 400 tons to the escorts' displacement, bringing their weight close to that of a destroyer. Prefabricated aluminum was used in all alterations in an effort to keep the added top-weight to a minimum. Even the tripod mast for the radar antennas and the huge deckhouses were constructed of aluminum. More than 60 tons of pig iron was placed in the bilges and voids to act as ballast and offset the added topside weight.

Besides the enlarged CIC and installation of electronic and communications equipment, many improvements were made in the habitability of the ships. Even by using soft, multi-colored paints in compartments, laying carpets from bulkhead to bulkhead, adding fluorescent lighting, air conditioning and individual bunk lights, it did not bring living conditions aboard the DERs up to par with other types of ships that have recently been converted. This is because of the original purpose for which they were built and, owing to their added versatility, almost every inch of their 306-foot hulls is utilized.

Even without too many plush accommodations, the majority of DER crew members, like most destroyermen, take considerable pride in their duty and consider it the most desirable and satisfying part of their naval careers.

DERs are small but heavy. They are rough-riding and far from comfortable. Usually the risks are great, as these ships always remain on station regardless of weather conditions. Work aboard the DERs is

ILLUSION—Bow of *Harveson* is not as long as it seems at first glance. She is moored close to tug while in port for supplies and a breather from patrol duty.



harder than in most ships, yet the attraction of duty aboard them defies analysis.

The radar picket sailor or destroyerman is summed up thoroughly in a *DesLant Information Bulletin* which says, "You can recognize a destroyerman by his attitude, his training, his appearance, his spirit of service and devotion to duty. You can take a man out of destroyers but you can never take the spirit, the enthusiasm, the seamanship skills, and general all around 'know how' developed in destroyers out of the man."

Without a doubt, duty on board DERs, like most types of destroyers, separates the blue-water sailor from the shore-duty hound. The reaction of men serving in *Harveson,* first of the DERs, is typical.

"I thought I'd been around quite a bit and could take almost anything any ship could dish out," QM3 Trotter said. "I had never been seasick in my life, and thought it was a bunch of imagination or malingering. The first time I went out in *Harveson,* I learned better. I was really surprised when I found myself heading for the rail. Only thing that was really hurt was my feelings."

Harveson and other DERs are on station continuously in all types of weather. They steam within prescribed areas on varying courses and speeds depending on prevailing wind and sea conditions. Each ship mans a designated station for eight days before being relieved. In the event of a breakdown while on station, another ship from the squadron takes its place on short notice.

Although assigned to the Atlantic Fleet Destroyer Force, the DERs while on station are under the operational control of the Commander Naval Forces, Continental Air Defense Command.

The surveillance and reporting procedures of the radar pickets are similar to the operation of Air Force Aircraft Control and Warning (AC&W) stations. If a contact is made by the DERs, word is immediately flashed to the nearest shore-based AC&W station.

Once contact is made by the DERs, all aircraft—whether U. S. or foreign, commercial or military—must identify themselves by prearranged plans. If such planes fail to make themselves known, the DERs immediately notify the AC&W, which in turn send all-weather jet fighter planes scrambling to intercept the unidentified contact.

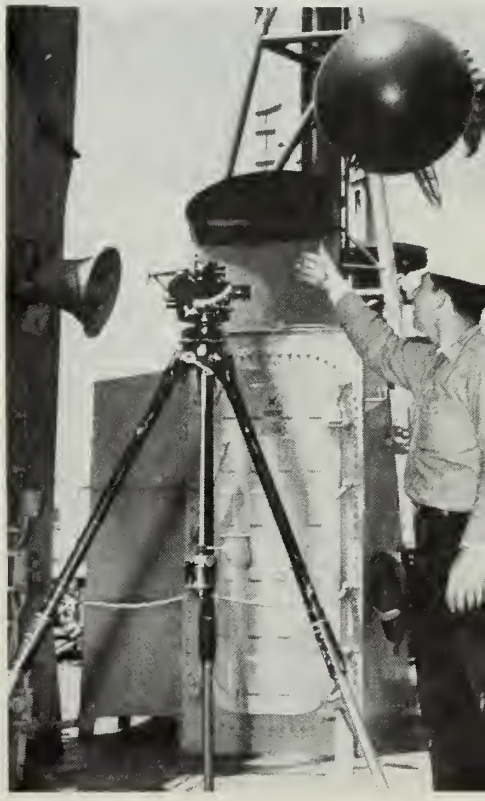
COOL JOB—Crew member of *USS Pillsbury* (DER 133) starts to clear ice after storm at sea. Below: DERs also help Navy check on far-out weather conditions.

To date, no hostile planes have been intercepted nor have the fighter pilots had to launch any rockets or do any shooting.

The DERs are capable of controlling—and frequently do control—interceptor planes sent out to investigate unidentified contacts made when on station.

It's the rigid schedule that the DERs must maintain, regardless of weather, that makes duty aboard them "rough." They spend many days en route to designated stations and then eight days on station, before starting the long haul back to port.

The DERs remain in port for at least six days before departing for station again. However, as "rough" as the duty may be, crew members swear by it. "Even with duty being harder than most DEs and DDs, I'm still satisfied with it," Halbrook said. "These DERs offer electronics technicians better training than most



USS FESSENDEN (DER 142) cruises Atlantic with her radar antennas alert. Below: keeping close guard below surface too, watch checks unidentified sub.

ships. ETs don't stand watches while at sea, but we're responsible for the continuous operation of the radar. When a piece of gear breaks down, we have to stay with it until it's repaired.

"Duty is tougher in the winter," ET3 Halbrook continued, "but ice doesn't bother reception. Sometimes an antenna freezes up and then it won't rotate. Believe me, it's a feat on a dark night, in the freezing cold, trying to break one loose while clinging to a wildly pitching ice-coated mast."

To ward off the problem of boredom while the DERs are on station, an off-duty recreation program has been organized for the crew. Weather permitting, they have plenty of swim calls, do some fishing and have movies almost every night. If they don't have movies nightly, they always come up with Bingo or some other kind of group entertainment.

In the past two years, while operating out of Newport, ships of Cort-Ron 16 steamed about a quarter of a million miles while en route to and from, and while on North Atlantic stations.

Not only can the ocean radar pickets find and fix the position of approaching aircraft, but under favorable circumstances, they are also capable of destroying them. They are equipped with three-inch rapid-fire antiaircraft and 20mm machine guns.

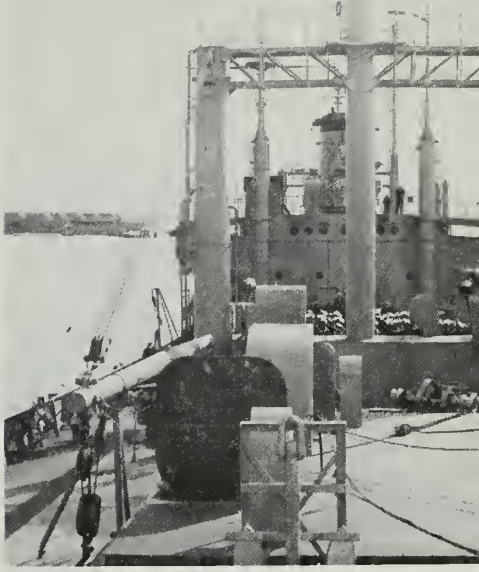
Originally built for convoy and escort work, the DERs still maintain their World War II anti-submarine punch. While on station they also conduct continuous submarine surveillance.

As a result, they can give advance warning of or even destroy an enemy submarine attempting to approach our shores to land advance reconnaissance parties, launch missiles or torpedo ships or lay mines in our harbors or shipping lanes.

Aerial screening and submarine detection are just a part of the many tasks the versatile DERs perform. They also give periodic reports of weather conditions at sea, act as rescue vessels by going to the assistance of small craft and merchant ships in distress, or act as control ships for planes or other vessels engaged in search and rescue missions.

Their ability to move from place to place, to operate in all weather, and perform many duties makes the radar picket escort vessel invaluable, as well as a hard-to-destroy unit of our naval air defense forces.

BERTHING SPACE on DER is large, considering size of ship and its extra equipment. New style lockers keep gear.



ON THE ALERT—*USS Picket* (YAGR 7) and *USS Interceptor* (YAGR 8), shown at commissioning, are part of picket team.

YAGRs Stand Ocean Sentry Duty

PERHAPS THE MOST UNUSUAL of the recent additions to today's "Navy of Tomorrow" are the YAGRs—Ocean Radar Station Ships.

They are the clumsy, awkward—but vital—ex-Liberty ships of World War II which underwent conversion and provided an economical answer to an urgent need—a mobile means of extending our Continental Air Defense System seaward.

Last year, when the Navy was required to bolster its contributions to CONAD, the mass-produced merchantmen were taken out of mothballs and converted for off-shore screening and advance warning duties.

The first of these were USS *Guardian* (YAGR 1), *Lookout* (YAGR 2), *Skywatcher* (YAGR 3) and *Searcher* (YAGR 4), which now comprise YAGR Squadron 21, based at Newport, R. I.

At present there are eight YAGRs in service. The latest are: USS *Scanner* (YAGR 5), *Locator* (YAGR 6), *Picket* (YAGR 7) and *Intercept* (YAGR 8) operating out of San Francisco.

Like the DERs, the YAGRs while on station, are under the operational control of the Commander Naval Forces, Continental Air Defense Command. When not on station the YAGRs are under the administrative command of either the Eastern or Western Sea Frontier Commander. (The DERs are under ComCruDesPac or ComDesLant while not on station.)

Although having the same basic mission, the YAGRs differ considerably from the DERs. During conversion, the Liberty ships were converted solely for radar picket duties and are no longer capable of being utilized as merchantmen.

"Conversion," in the case of the DERs, meant primarily the addition of communications and electronics detection devices, enlarging the Combat Information Centers and redesigning compartments necessary for the job of extending the nation's early warning system beyond the reaches of shore-based radar. With these modifications and added equipment the DERs took on a new role, but did not lose their capabilities of performing the diversified duties for which they were originally built.

The WW II Liberty ships were selected for conversion to ocean radar station ships because there was no immediate need for their use as cargo carriers. Their wide and deep 10,000-ton-capacity cargo holds were ideal for installing large amounts of electronics detection equipment and building spacious living compartments.

During conversion, former storage spaces became enlarged CICs, air and surface radar masts replaced cargo booms, overhead lighting gave way to indirect fluorescent fixtures, air conditioning and additional communications equipment were added.

Habitability was the keynote of the conversion of the ex-merchantmen in order to give officers and crews of the YAGRs modern living conditions and features of shore-based facilities during long periods of patrolling on lonely stations.

Messing compartments, with four-man tables and colorful inlaid linoleum, have taken on the appearance of modern restaurants. Officers and CPOs have individual staterooms, while PO1s share four-man compartments. Other crew members have double-deck "chief-type" aluminum bunks, individual bunk lights and roomy lockers.

Two former cargo holds are now utilized for handball, archery, volley ball, table tennis, weightlifting and even a golf driving range. Hobby shops include woodworking equipment and a photographic darkroom.

The ocean radar station ships even have permanent motion picture theaters which are also used for divine services and assembly halls.

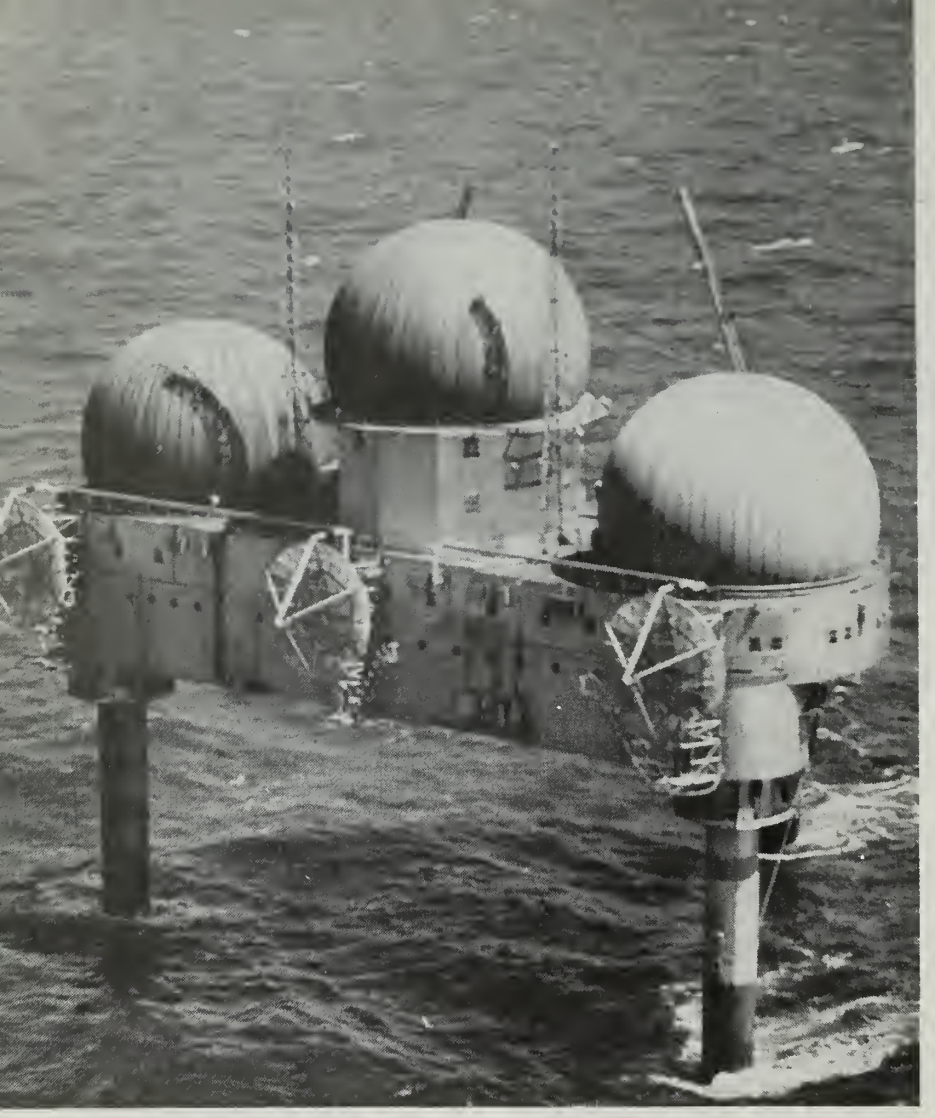
To insure greater stability and to help keep sensitive electronics equipment on an even keel, 6000 gallons of water have been sealed in the double bottoms.

With the new distilling systems now in use, the inconvenient rationing of water—common to most ships at sea—is unheard of aboard the YAGRs. Their enlarged distilling systems are adequate to assure enough fresh water so that usual conservation steps are not required.

The YAGR men like their duty. The crews of ocean radar station ships boast that, while performing tough and vital sentry duty on the high seas, they have the best living and recreational facilities in the Fleet.

—H. George Baker, JO1, USN.

ISLAND



ALONE IN THE WIDE sea off Georges Bank the first Texas Tower constructed under Navy supervision stands guard. Ball-like domes house radar antennas.

HUGE, TARANTULA-LIKE platforms far out in the Atlantic Ocean will soon join the vast early-warning radar net that is protecting this country against possible sneak attack.

The first of these platforms, called Texas Towers, was put into operation last year. This monstrous man-made island stands on three legs, or stilts, sunk deep into the Continental Shelf some 150 miles southeast of Boston.

The radar platforms represent a joint effort by the different branches of the service and civilian engineering firms. The platforms were designed and constructed under the direction of the Navy's Bureau of Yards and Docks. Air Force personnel will man the towers and provide helicopter service while MSTS will provide the surface transportation to and from the towers. The first of these radar islands is called "U.S. Air Force Station, Georges Bank, Texas Tower No. 2."

In addition to the towers in the Atlantic, plans are currently underway to construct another type of offshore island for use by the Navy. These platforms, to be constructed in the Gulf of Mexico, differ from the Texas Tower platforms in design, size and purpose. The Navy's offshore islands will house personnel who will study temperature and pressure variations in the sea, salinity factors, thermal gradients and periods and length of ocean waves.

The larger of the two types will be erected in 100 feet of water approximatxely 12 miles off the coast, with the platform 40 feet above the waterline. The smaller type will be located in 60 feet of water about two-and-one-half miles off the coast, also with a platform 40 feet above the water line. The lower deck of the platform will in each case clear the crest of hurricane waves.

Both types will be equipped with diesel electric generators, auxiliary machinery, heating, ventilation, galleys, refrigeration and crews' quarters. Helicopter landing decks, radar and communication facilities will also be provided. The larger platform will have sleeping accommodations for 30 persons while the smaller one will accommodate four.

The Bureau of Yards and Docks has already let the contract for the construction of these two Gulf Coast platforms for the Navy. Of more immediate interest to the Navyman are the Texas Towers now under actual construction and their installation in the Atlantic Ocean.

The Texas Tower southeast of Boston, first of these offshore radar stations, will become part of this nation's Continental Air Defense Command. A string of platforms will be built on the Continental Shelf between Virginia and Newfoundland and will close an important gap in the nation's radar defenses.

The towers, which have an area of some 20,000 square feet, are an adaptation of the so-called Texas towers on which numerous successful oil well rigs have been built in the Gulf of Mexico.

The typical tower platform is a 6000-ton triangular structure, approximately 200 feet long on each side, with a height of 20 feet, allowing for two decks. The upper deck is for living quarters, galley, mess hall and recreational facilities. The lower deck is for power plant, boiler rooms, fuel and water tanks and storage space.

Covering a part of the main deck is a deck house 60 feet wide and 200 feet long containing offices and operational facilities. Also rising from the roof of this deck house are two radio antenna masts and three ball-shaped radar domes about the size of a two-story greenhouse with planetarium-like roofs. Under these domes are the radar detection antennas. Two 80-foot boom derricks are located on the main deck.

The part of the main deck outside the deck house is kept clear of obstructions and is used as a heliport. Under the platform there is a revolving bridge to allow access to

BUILDERS

all underside facilities as well as to each of the three supporting caissons.

Each radar tower will be self-sustaining, generating its own electric power and supporting a crew of 50 to 70 men.

After all the work that could be done at the shipyard was completed, the tower was made watertight and towed to its permanent location. With its 12 temporary tubular caissons and the three permanent caissons riding high in the air, the platform resembled a floating factory.

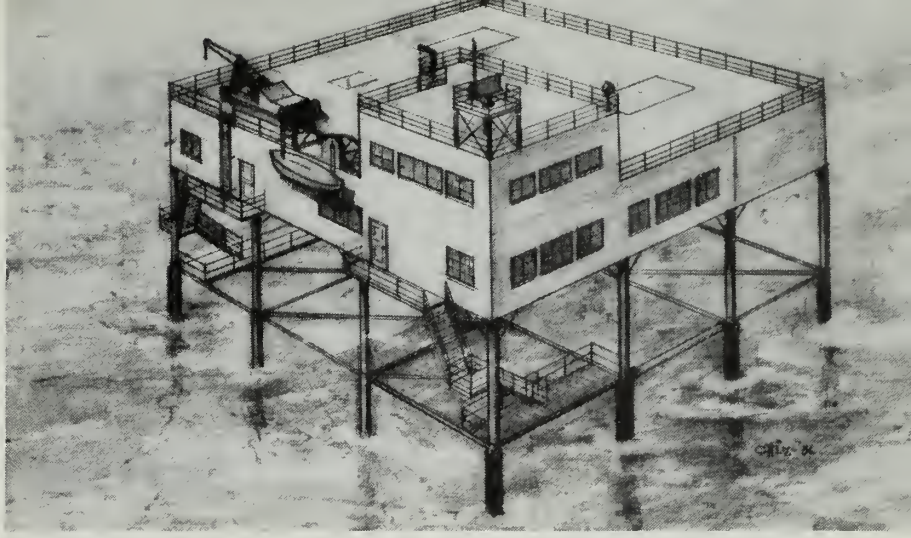
Once at the site, the temporary caissons were dropped to the ocean floor through the open wells of temporary brackets on the platform. Then a complicated pneumatic system took over to raise the platform high above the level of the water.

The raising process is much like that of a boy "shinnying" up a tree. A rig attached to each of the caissons contains a set of two rubber tubes, similar to gigantic automobile tire inner tubes. The tubes perform the role of the arms and legs in shinnying up the caisson.

One tube is deflated while the other is inflated so that it tightly grasps the caisson. The pneumatic system jacks the tube a fraction of an inch, pushing down on the caisson and lifting the platform. The deflated tube is then inflated to lock the platform in place, and the cycle is repeated.

The raising process is so accurate that movement of the platform can be controlled to one thirty-second of an inch.

The platform is supported at the beginning by the 12 temporary caissons, each six feet in diameter. Once the three permanent caissons, each 10 feet in diameter, are imbedded 48 feet into the ocean floor and the platform welded on, the temporary caissons are removed. The first of the Texas Tower platforms stands 81 feet above the level of the water.



NAVY'S OCEAN TOWERS shown in artist's sketch will be used for environmental studies. These stations will be located off Florida in Gulf of Mexico.

At present, the U.S. Navy and Air Force keep a radar eye out on the Atlantic with picket ships and complex radar aboard huge air transports. Although the towers will not replace the aircraft and surface ships for long-range radar work, they should replace the expensive airborne operations nearer the East Coast.

There are no usable offshore shoals on the West Coast and therefore no offshore radar platform construction is planned.

The Atlantic towers are a part of a gigantic warning radar web, including hundreds of ground warning stations, run by the Continental Air Defense Command. There are two general types of ground warning stations—semi-fixed and small automatic. While the semi-fixed stations take up 40 acres, the small automatic stations require only half an acre. The automatic stations pass on to the larger stations what radar observations they pick up.

These stations, as well as the Texas Towers, will relay information concerning the direction, speed and altitude of approaching aircraft to the Air Defense Command for interception action.

In addition, these stations will pass on their information to Nike units throughout the country and will also keep them informed as to the location of friendly interceptors.

Built under BuDocks' supervision, these offshore platforms, which would have been considered absurdly fantastic a few decades ago, present another victory by man over the untiring sea. It is believed that the Texas Towers are the largest structures ever built so high above the sea, so far from land, and under such hazardous conditions.

—Rudy C. Garcia, JOC, USN.

PLATFORM is made ready to inch up temporary caissons. *Right:* Nearly completed, it rests on permanent legs.

The Story of Radar – And How I

FROM THE jet age juvenile to the man in the moon, everybody's heard of radar.

Most Navymen think of it as strictly a World War II invention, but actually the reflection of radio waves from solid objects, which is the basic principle behind radar, was proven as far back as 1886 by Heinrich Hertz, the discoverer of radio waves. In 1904 a German engineer was even granted patents in several countries on a proposed way to use this principle aboard ship as a navigational aid and obstacle detector.

Since then this wonder-working electronic eye has come a long, long way. In fact, its waves have been bounced off the moon. And they can also be bounced off fast-moving automobiles—that's how the traffic-ticket-by-radar was born.

The Navy doesn't have much to do with highway radar, but it can point with considerable pride to the important part it has played in radar's development. Three Navy scientists, Dr. Albert Hoyt Taylor and Mr. Leo C. Young, of the Naval Aircraft Radio Laboratory, and Dr. R. M. Page, of the Naval Research Laboratory, were among the foremost early pioneers of radar as we know it today.

In 1922, while testing plane-to-ground communications in the short-wave bands at Hains Point, Washington, D. C., Taylor and Young noticed that ships moving in the Potomac River distorted the pattern of radio waves, causing a "phase shift" or fluctuating signal. Until then it had not been known that radio waves could be reflected from small, moving objects, as well as from mountains and other large masses. Dr. Page was one of the leading figures in the research which followed this discovery, and many of the early radar patent applications were filed in his name.

By 1932 the Navy scientists were able to detect planes 50 miles from their transmitter, and by March of the following year NRL had made enough progress to outline in detail the theoretical military applications of radar. Congress helped keep the ball rolling in 1935, when the Lab got an appropriation of $100,000 specifically for radio detection work. (The name, radar, comes from RAdio Detection And Ranging.)

In June 1936 ADM Harold G. Bowen, USN, then Chief of the Bureau of Engineering, directed that plans be made for the installation of a complete set of radar equipment aboard ship. As a result, the old four-stacker, USS *Leary* (DD 158), had the distinction of carrying the first seagoing radar, which was tested successfully in 1937. On 17 February of the same year the then

Joined the U.S. Navy

Assistant Secretary of the Navy, Charles Edison, and Fleet Admiral William D. Leahy, USN, then Chief of Naval Operations, witnessed a demonstration of aircraft detection by the first radar set developed in the United States.

A more practical set was installed in USS *New York* (BB 34) in 1938. Its success on maneuvers in early '39 proved radar was here to stay, and orders were put out for commercial production. By the time America entered World War II much of the Fleet had been equipped with this invaluable gear.

Meanwhile, scientists of other countries had also been working on radar of one type or another. In 1940, at a conference between British scientists and representatives of the Navy Department and Naval Research Lab, members of the British mission disclosed that their development of radar had stemmed from articles on the work Taylor and Young had done between 1926 and 1930.

During the war radar made tremendous progress behind its curtain of super-secrecy. In 1940-41 it helped win the Battle of Britain by enabling the RAF to intercept German bombers no matter when they made their attacks or where they crossed the English Channel. In 1942 it enabled the defenders of Midway to turn back the Japanese fleet.

In 1943 it guided a Navy plane to the first successful ground-controlled interception of an enemy aircraft in the Pacific theater.

Besides spotting enemy ships and planes, it was found that radar could be used in navigation, fire control, bombing, Ground Controlled Approach, meteorology and countless other operations.

The Office of War Information summed up the importance of radar when it said (before the atomic bomb was dropped):

"Radar has, more than any single development since the airplane, changed the face of warfare; for one of the greatest weapons in any war is surprise, and surprise is usually achieved by concealment in the last minutes or hours before an attack. The concealment formerly afforded by darkness or fog or cloud or artificial smoke or the glare of the sun simply does not exist in the world of radar."

Few people realize that during the war more money was spent on radar research than on the development of the A-bomb—three billion dollars on radar and two billion on atomic energy. Since the war, radar's versatility has proved it was well worth the cost.

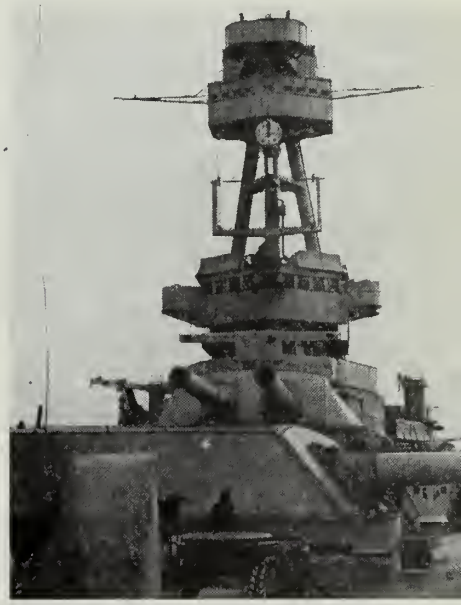
The principle of radar is the same as that of an echo, except that instead of sound, radar works with radio waves. For many years echoes were used to estimate such things as the distance across a canyon or the range of an iceberg from a ship.

How? Well, let's say your ship is near an iceberg. When a blast is sounded on the whistle you time the interval between the blast and the return of the echo from the 'berg. Suppose it takes six seconds for the sound waves to make the round trip from ship to 'berg to ship. Since sound waves travel 1100 feet a second, the sound has gone 6600 feet in those six seconds. Divide the 6600 in half and you come up with the distance to the iceberg—3300 feet.

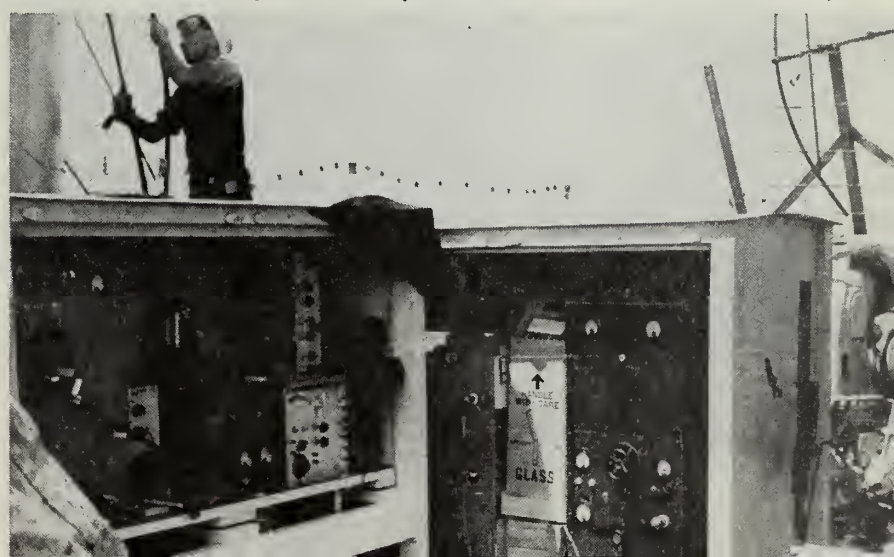
Of course, radio waves, moving at the speed of light (186,000 miles a second), travel much faster. But the principle is still the same—the measurement of distance by the time it takes for reflected waves to return to their source.

Basically, a radar set consists of three essential parts; a transmitter

ANTENNA-STUDDED superstructure compared with early models (below) illustrates how radar had advanced.



EARLY BIRDS—*USS New York* (BB 34) tested radar in 1939 (note rectangular antenna between bridge and foretop). *Below:* First radar as it was on *Leary*.



WORLD WAR II brought great advances. Planes like PBM Mariner took Navy radar into the air during the war to search out and destroy the enemy.

to send out pulses of high-frequency energy, a receiver to detect the minute portion of energy which is reflected and a device to measure the time interval between pulse and echo and portray this information to the operator.

The radar pulse begins in an oscillator, which produces extremely high frequency radio waves, ranging from less than one million to 10,000 million cycles per second. These microwaves are conducted to the antenna by coaxial cables or hollow, metal pipes called wave guides. On their way to the antenna the waves pass through a device called the duplexer, which automatically switches the antenna from the transmitter to the receiver during the time radar echoes are returning. Thus, the same line and antenna can be used for either sending or receiving.

Since microwaves behave in the same way as light waves, a radar antenna (especially the parabolic one used in fire control) is a lot like the headlight of a car. As the light waves from the headlight are concentrated in a beam by the reflector, so the radar waves are concentrated into a beam or "lobe" by the antenna.

If you'll look around your ship, you'll notice antennas shaped like dishes, bedsprings and barrel-staves. Each of these shapes produces a lobe pattern for a particular job. The size of the antennas varies according to frequency. Low frequency radar uses a large antenna and high frequencies require small antennas.

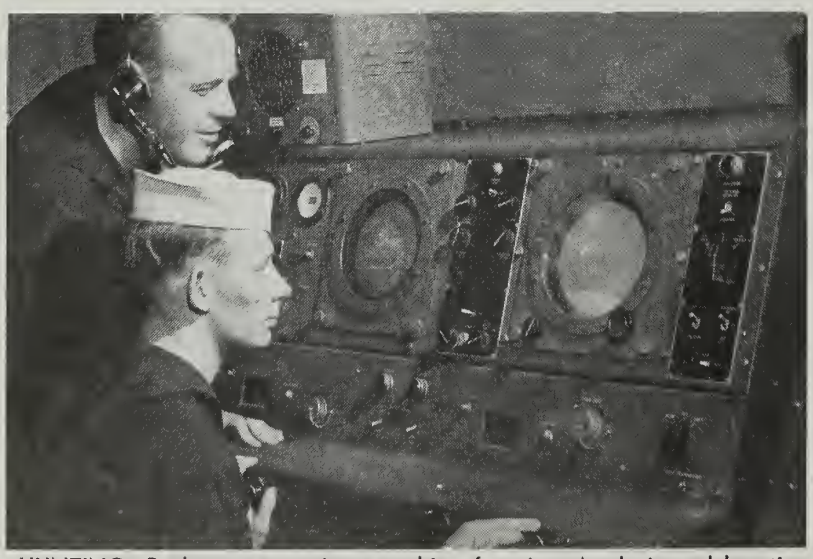
The "dish" or parabolic antenna is used with high frequency fire control radars because it creates a sharp, narrow beam for pinpointing targets. The "barrel-stave," which is actually a dish antenna with the top and bottom pieces cut off, focuses the waves in a beam shaped like a vertical fan. This type is most commonly associated with surface search radars. The "bedspring" antenna, used with low frequency radars, produces a broader fan which is the most effective shape for the detection of planes at long range.

A radar pulse lasts for only a very few microseconds, after which the

RDs Have a Pip of a Job Operating Navy's Electronic Eyes

RADAR PLAYS an important part in the duties of many ratings in this electronic, nucleonic Navy, but the rating generally thought of first in connection with it is, of course, radarman.

At sea, the RD works in the Combat Information Center, where reports from lookouts, sonar, radio, radar, visual signals and intelligence are sifted, evaluated and combined to give the entire ship an up-to-the-minute picture of everything going on in the surrounding area. No matter how skilled the CIC officer may be, his evaluation depends in large part on the radarman's speedy and accurate interpretation of what he sees on the scopes. An RD's mistake in the judgment of the size, number, movement and location of contacts could mean the loss of his ship.



HUNTING—Radarmen practice searching for pips. Analysis and location of contacts by RDs may some day determine the safety of their ship.

The RD's job calls for a lot more than looking for pips, reading ranges and bearings and keeping his set in good working order. Besides knowing how to operate his own set he also has to know how to foul up the enemy's radar through electronic countermeasures and how to overcome enemy attemps to do the same to him.

Since peering into a scope is a tedious, eye-straining job, radarmen usually work in pairs, with the "onseat" operator being relieved by his partner every half hour. When not "onseat" the RD still has plenty to do. Logs and status boards have to be kept on information coming into the CIC. Navigational data and the location and movement of friendly and enemy ships and planes have to be mapped out on various plotting and maneuvering boards to keep CIC displays current. When not occupied at one of these tasks the RD may be found manning the sound-powered phones, the squawk box, voice tubes or ship's service phones to

transmitter "rests" for several thousand of these infinitesimal measurements of time. This is to keep the next outgoing pulse from drowning out any returning echoes while the receiver is listening for them. It also prevents the transmitter from going up in smoke, since the set would soon burn itself out if it were sending constantly with all its tremendous power.

When the radar waves hit a target they bounce back to the antenna and are "piped" to the receiver. The receiver amplifies the echo and causes it to show up on the radar scope as a "pip." The scope is actually the face of a cathode ray tube, similar to the picture tube in a television set.

Aboard ship the most common scopes are the PPI, RHI and precision scopes. The PPI (Plan Position Indicator) shows a map of the area around the ship, putting into proper relative position all the targets the radar "sees." On it a line of light called the "sweep" swings around the screen like the second hand on a clock, pointing in the same direction as the antenna. The pivot point of the sweep, in the center of the screen, is the ship's location. A pip appears as a spot of light, "painted" in the fluorescent chemical of the screen.

Each time the sweep hits it again the spot becomes a little brighter, until it continues to glow for several seconds after the sweep has passed. Ranges and bearings to the contacts can be determined by the operation of various controls.

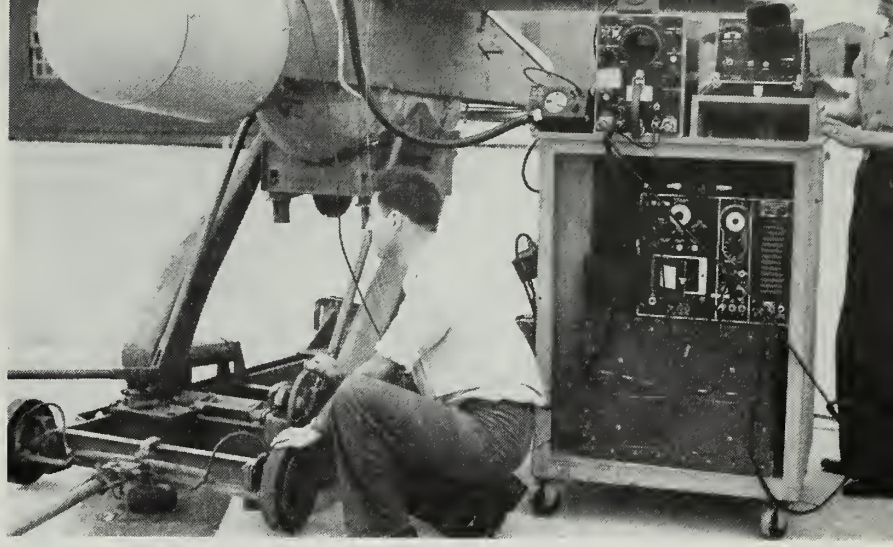
The RHI (Range Height Indicator) presents a picture of a vertical cross section of space. The location of a plane in this cross-section graphically portrays its altitude and distance from the ship.

The various indicators used in fire control gear usually show the operator a pip in relation to a set of cross hairs. By training his equipment so that the cross hairs fall on the pip he points his director at the target.

Since the echoes picked up on radar scopes are called pips, the art of interpreting them is known, appropriately enough, as pipology. Once he has mastered this complicated, "seat-of-the-pants" art, the experienced radar operator can correctly identify the number and type of targets in a great many cases.

He can also tell whether the contact is on his side or the enemy's, through IFF (Identification Friend or Foe). This system consists of two units, the challenger hooked up to your ship's long-range air search gear, and the transpondor, carried by friendly ships and aircraft. In effect, the challenger electronically asks, "Who goes there?" and the transpondor answers by returning an echo which shows up as an identifying pattern on the PPI.

It's appropriate that radar should ask such a question, for this electronic wonder-worker is like a sentry, "walking" its post night or day, fair weather or foul, peace or war, to protect you, your ship and your country. —*Gerald Wolff.*



RADAR OPENED up field of guided-missile warfare. Here Navymen check WW II Bat, first fully automatic guided missile, which was radar-guided.

Here's How You Qualify

relay to the rest of the ship the latest CIC information.

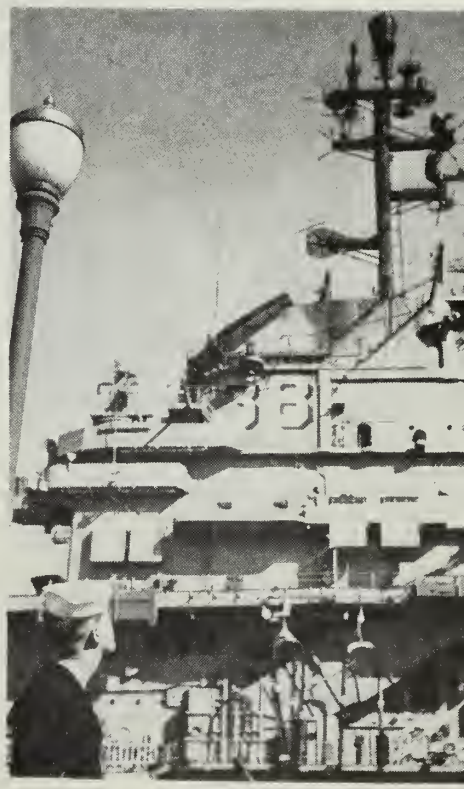
To qualify for the rating an aspiring RD should have average or above average general learning ability and should be able to use numbers in practical problems. He must also have good near vision, normal hearing and a clear speaking voice. A background in physics, mathematics, radio and electricity won't hurt him a bit either. He may get his training in radar through on-the-job experience, training course manuals or service schools.

There are two Class A schools, one Class B school and a number of special courses in which radarmen learn the intricacies of their complicated jobs.

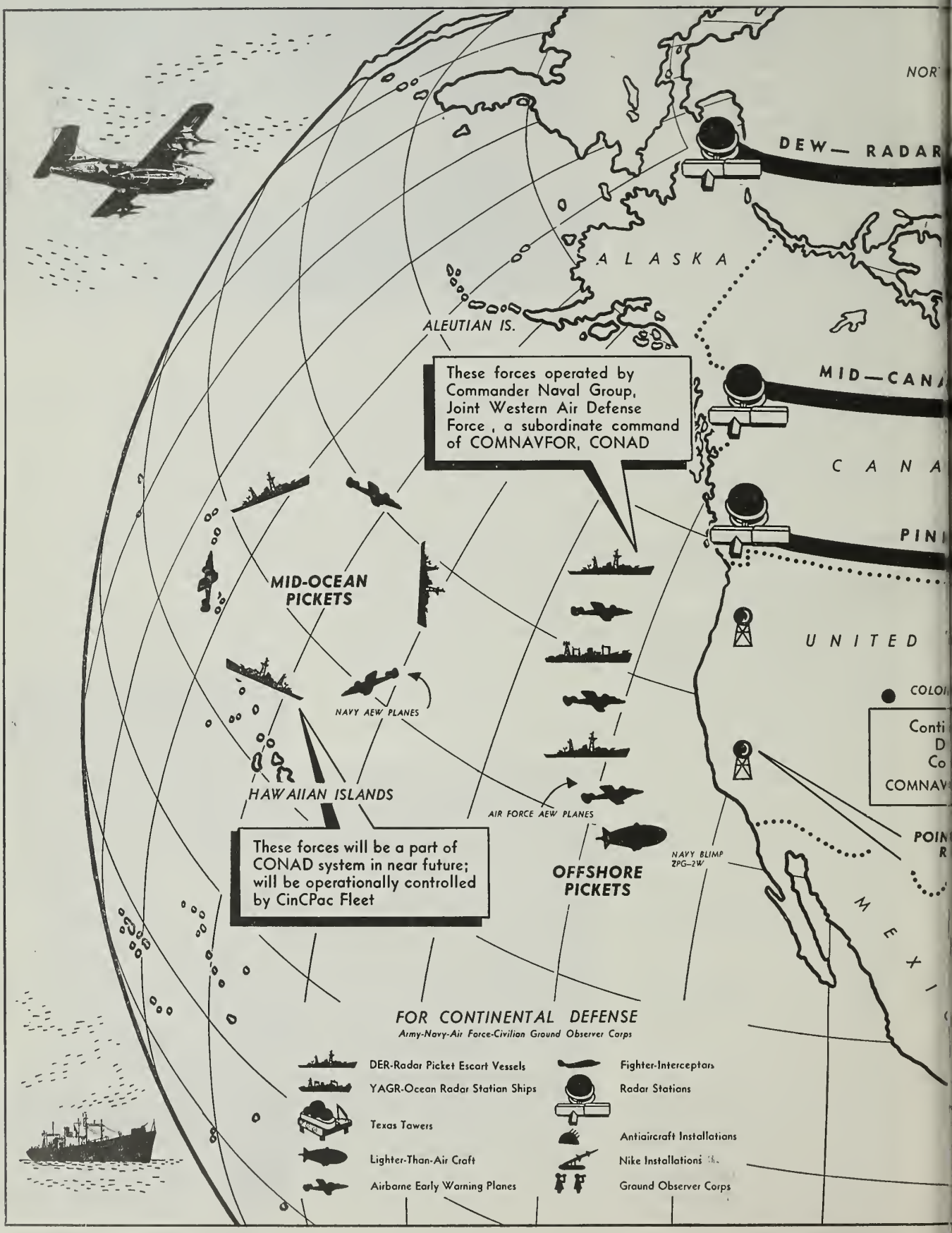
The Class A schools convene every two weeks and the Class B school, every four. For details see NavPers 91769-B.

In a way, the radarman is a modern descendant of the lookouts who manned the crow's nests in ships of long ago. For, although RD didn't join the Navy rating structure until 1942, his job of scanning sea and sky has been part of the Navy from its beginning.

SPECIALIZED RADAR antennas used on today's ships form weird pattern high above *USS Shangri La* (CVA 38).

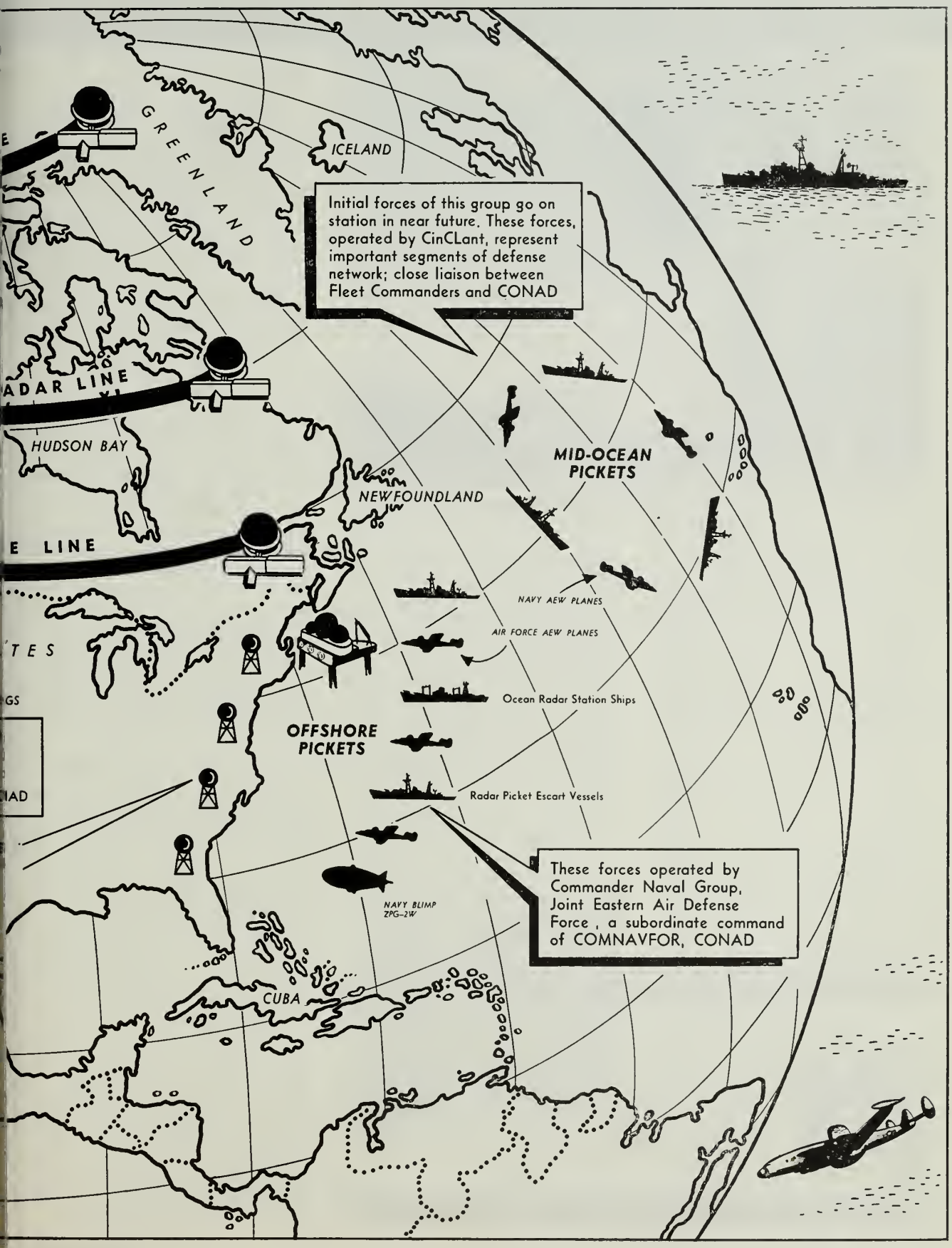


EYES AND EARS ON DUTY



Prepared by ALL HANDS Magazine

DEFENSE OF A CONTINENT



★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

FILL 'ER UP — in the air. *USS Leyte* (CVS 32) pumps gas up 300 feet to airship while maintaining 22 knots during LantFlt amphibious exercises.

Safety Award for NATC

The Navy's highest award for aviation safety in 1955 has been made to the Naval Air Training Command.

Flying nearly 2,000,000 hours during 1955, the Training Command lowered its aircraft accident rate by 27 per cent over the earlier record set in 1954.

Each of the major segments of the Training Command—Basic, Advanced, Reserve, and Technical Training has brought its aviation accident rate well below the goal which had been set for the Navy as a whole. In making the award, Admiral Arleigh A. Burke, CNO, noted that the improved safety record had been established at a time when a sizable portion of the flight training was being shifted from propeller-driven planes to jets.

In recent years the cost of airplanes has risen very sharply. During World War II the Navy's first-line fighter aircraft cost $75,000 to $100,000 apiece. The cost of today's first-line fighter and attack planes averages well over half a million dollars. Likewise the cost of training a naval aviator has risen sharply. The Navy's latest figure on the cost of the 18-month program which leads to designation as a naval aviator is $89,500 per student.

During 1955 the Naval Air Training Command averaged less than three accidents of all types per 10,000 aircraft flight hours. Fatal accidents were less than one for every 32,000 hours of flight training.

In September 1865, the Naval Academy, temporarily located at Newport, R. I., during the Civil War, was moved back to Anapolis, Md. On 3 Sep 1783 Great Britain, in the treaty following the Revolutionary War, acknowledged America's independence. On 11 Sep 1814 the Navy's victory in the Battle of Lake Champlain saved the United States from invasion. On 12 Sep 1942 Brazil placed her navy under the U. S. Navy's operational control. On 15 Sep 1950 the Navy landed the 1st Marine Division, U. S. 10th Corps, at Inchon in successful amphibious assault.

—USN

Last Signal for NAA

"Radio Arlington," once the most powerful radio station in the world and the first modern high-power radio station in history, has sent its last signal. The famed station, using the call-letters NAA and known to sailors as U. S. Naval Radio Station Arlington, has been disestablished after 43 years of global service.

The world's first shore-to-ship radio conversation originated in 1915 via "Radio Arlington" when Secretary of the Navy Josephus Daniels conversed from his desk in the Navy Department at Washington, D. C., with uss *Nebraska* (Battleship No. 14) off the Virginia Capes. In the same year there followed the first transoceanic radiotelephone system ever set up—between the station and the Eiffel Tower, Paris, France. A year later the pioneer long-distance telephone conversation, between "Radio Arlington" and the Navy's Radio Honolulu, took place. All of the War Department's messages during World War I were sent from "Radio Arlington."

The closing of the Navy station was marked by ceremonies held at the site of the original radio station in Arlington, Virginia.

Heavy Attack Wing for PacFlt

The first heavy attack wing in the Pacific Fleet Air Force was commissioned at the San Diego Naval Air Station. Heavy Attack Wing Two will assume operational and administrative control of the Pacific Fleet's heavy attack squadrons.

Heavy Attack Wing Two will be made up of Heavy Attack Squadrons Two, Four, and Six. The primary purpose of these squadrons is to conduct long-range, all-weather bombing missions.

The squadrons will fly the new A3D *Skywarrior* and the AJ2 *Savage*. The 25-ton *Savage* is capable of carrying an atomic bomb, while the *Skywarrior* has demonstrated that it is capable of taking off from a carrier in the Pacific, carrying out a mid-continent bombing mission, and landing on another carrier far out in the Atlantic.

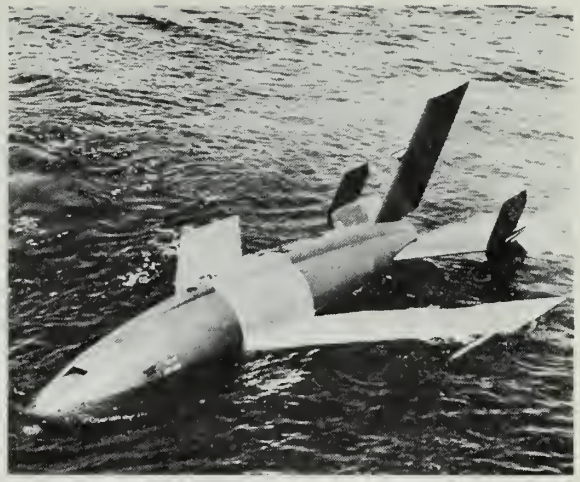
Turbojet Target Drone

To provide a high performance target for gunnery and missile crews, the Bureau of Aeronautics is performing evaluation tests on the turbojet KDA-1 *Firebee* drone at the Naval Air Missile Test Center, Point Mugu, Calif.

The *Firebee,* launched from a "mother" plane, is remotely controlled from a ground station and permits unrestricted angles of approach. Upon being released from the aircraft at 15,000 feet, it will fly for 30 minutes at a speed of 500 miles per hour up to an altitude of 35,000 feet.

Reflectors which are sensitive to radar can be added to the *Firebee* to give gun crews an image on fire control radars similar to that which is reflected by larger aircraft.

At the end of its flight, the *Firebee* can be recovered by a two-stage parachute system which operates automatically or by command. It can be recovered from land or water, repaired as necessary and flown again. Some KDAs have been flown as many as 10 times. This repeated use makes the *Firebee* more economical than conventional aircraft which have been converted to drone operations.



TURBO JET DRONE, *Firebee* KDA-1, is latest target for gunnery and missile training. Chute eases it down after run where (rt) it floats until picked up.

Plenty of E's for Red Rippers

Fighter Squadron 11, the famed "Red Rippers," have set an aerial bombing record never before equalled in the annals of Atlantic Fleet aviation: the squadron's 14 marksman-pilots have each earned the Navy's Efficiency "E" for their accuracy in high-angle loft bombing, in an annual competitive exercise held among all Atlantic Fleet squadrons capable of atomic weapons delivery.

In high-angle loft bombing, sometimes called "over-the-shoulder," a plane does an Immelman or half loop, releasing its bomb at some specified point along the course of the pull-up. Such maneuvers are necessary in atomic bombing to allow either jets or conventional aircraft to reach a safe distance after dropping their payload.

The members of VF 11, who flew F2H-4 *Banshee* jets for their record-setting performance, have been training extensively to increase their proficiency in delivering nuclear weapons. The squadron is a unit of Carrier Air Group 10, based at NAS, Cecil Field, Fla.

Late Style in Navy Suits

Two new suits have been developed to make life safer for Navymen working with rocket propellants and hazardous fuels.

Made of cotton, coated with resin-modified butyl rubber, the suits are designed to protect those who handle "hot stuff" such as foaming nitric acid and other corrosives.

One outfit, the general purpose suit, is to be worn by those who maintain and operate storage tanks, piping valves and power plants. The other, a special purpose suit, is for use in brief, but dangerous operations, such as refueling, loading, or repairing battle damage.

The general purpose suit consists of a waist-length jacket, bib-overall type trousers, hood, gloves and knee boots. Protected openings provide ventilation and the jacket and trousers can be taken off in seconds in an emergency. The special purpose outfit is of one piece with attached foot coverings and gloves. Since it completely encloses the wearer, this suit is hooked up to a hose to provide air for ventilation and breathing.

TWO NEW PROTECTIVE suits for Navymen are (left) suit for handlers of hazardous fuels and (at right) general purpose suit for rocket work.

Both suits were developed for BuShips by the Clothing Supply Office at Brooklyn, N. Y., as part of a joint armed forces project.

Navy's Top Aerial Marksmen

The title of "the Navy's Best Aerial Marksmen" has been bestowed upon Fighter Squadron 112.

The Miramar, Calif.-based aerial sharpshooters won this distinction by outshooting three Navy and two Marine Corps teams during the first All-Navy Fleet Air-to-Air Gunnery Meet.

The six teams taking part in the meet represented the finest aerial gunners the Atlantic and Pacific Fleets had to offer. Each team consisted of a squadron commanding officer, three pilots and one alternate pilot.

Each team member fired 280 rounds of ammunition, without tracers, at targets towed at 15,000 and 25,000 feet. They were permitted to make only two runs on each target.

Fighter Squadron 112 scored 2964 points to win the Earle Trophy, while second place honors went to Marine Fighter Squadron 314 with 2554 points.

Individual honors for the meet went to LTJG Harold N. Wellman of Fighter Squadron 43 based at NAS Jacksonville, Fla. Shooting with a 20mm cannon, he scored 1096 points out of a possible 2240. In recognition, he was presented a trophy and acclaimed as the over-all individual champion of the 1956 Fleet Air Gunnery meet.

FRONTIER GAS STATION—*USS Nespelen* (AOG 55) moors to ice edge at McMurdo Sound, Antarctica, to fuel planes exploring unknown continent.

Earth's Last Frontier

If a last physical frontier exists, it is within those six million square miles of ice and snow that lie inside the Antarctic Circle.

Until last December more than three-fourths of the Antarctic had never been seen by human eyes. Today, photographs of one third of this unknown area are being processed and compiled into charts.

This frontier was penetrated by a handful of pilots and aircrewmen and four aircraft that in one month explored more of the Antarctic than all previous expeditions combined.

Early in December, last year, five ships of Task Force 43 were on station two hundred and fifty miles apart between New Zealand and Cape Adare on the Antarctic continent. Two R4Ds, two R5Ds, two UFs and two P2Vs were launched in man's first attempt to fly to the Antarctic from a land base. In past expeditions, aircraft had either been offloaded from a ship onto the ice or launched from an aircraft carrier a few hundred miles out.

About six hours out, the UFs and the R4Ds began to experience fuel problems owing to strong, unexpected headwinds. Within the next hour the four aircraft were ordered to return to New Zealand.

By evening the two R5Ds and the two P2Vs had landed on an ice strip near Ross Island at McMurdo Sound. That night the tired crews slept on board the ice-breaker USS *Edisto* (AGB 2), the ship carrying the advance parties that had laid out the ice strip and set up the camp at McMurdo.

The first week at McMurdo the aircraft were fueled by hand-pumping gas from 50-gallon rubber drums brought 35 miles by helicopter from the ships. Later, the planes were flown to a temporary ice strip beside the refueling ship, USS *Nespelen* (AOG 55).

During the following weeks flight operations were conducted regularly. Helicopters and *Otter* float-ski planes carried supplies between the ships and the budding air facility at Hut Point. Three hundred miles away other helicopters and *Otters* were on reconnaissance flights for the trail parties reaching out from Little America toward a point 80° South, 120° West. This point is one of the several outposts to be manned by scientists during the International Geophysical Year in 1957-58.

Back at McMurdo, the R5Ds and the P2Vs were conducting long range exploratory operations over the continent. The South Geographic Pole was crossed four times. One flight continued on to the Weddell Sea area and back—a 3450-mile trip that took 19 hours. In addition, the South Magnetic Pole was surveyed from the air and one hop reached far out into the hinterland to examine the "third pole"—the pole of inaccessibility—the Continent's most remote area.

Before Operation Deepfreeze I, approximately three million miles of the interior had remained totally unexplored. The air unit surveyed at least a third of the heartland never before seen by humans.

By the middle of January, unseasonably warm weather had weakened the ice to the point that the landing strip was unsafe. Long cracks had opened in the ice; seals and penguins were everywhere. The decision was made to return to New Zealand.

On the 17th, unfavorable winds prevented the fly-out but on midnight of January 18th all four aircraft were in the air headed for civilization. Eleven hours later the east coast of New Zealand came into view. The job was nearly over for these men. All that remained was the leisurely flight home over warm seas and friendly islands.

The job was not over for others. The Navy helicopters were still moving supplies at Little America and McMurdo Sound. The *Otters* at Little America were continuing their mission of running reconnaissance flights and dropping fuel and food to the trail parties of the Special Seabee Battalion. The men who manned and supported these aircraft were unsung heroes of the air unit. All day long—and there is, of course, no night—these aircraft were in the air. They were aware that in a few more weeks the cold Antarctic nights would begin, and the ice could freeze overnight, locking the ships in for an entire year. The success of the International Geophysical Year program rested on the speed and efficiency of this logistical air support.

On February 4th word was flashed that one of the *Otters* was missing on its return from a trail party outpost 350 miles from Little America. Six and one-half days later seven weary, hungry airmen were found. Their plane had crashed during a treacherous Antarctic whiteout.

Our summer is Antarctic's winter. In our early spring, temperatures there were running 40° below zero, frigid winds were piling snow alongside and over the huts that are now sheltering nearly two hundred persons who have volunteered to remain until next year. This group includes personnel of the Seabee Battalion and VX-6.

This fall, when the ships and air-

craft return, camps will be established and Operation Deepfreeze II will be underway. Scientists will arrive with their tons of equipment. Through the long days and nights to follow in 1957 and 1958 they will be busy with theodolites, seismographs, geiger counters and tide tables.

Navymen are penetrating further and further into the last frontier.

Musical NavCads

Voices now scattered to the four winds and seven seas will be entertaining you later this year by means of a 12-inch long-playing record. The recording was made in Hollywood by the Naval Aviation Cadet Choir from Pensacola, Fla., and includes Christmas music, hymns and popular selections.

The most unusual thing about the music—and the choir itself—is the maintenance of a high standard of excellence, despite the rapid turnover in choir membership. Cadets making up the group are assigned to Pensacola primarily for training, and move on to duty with the Fleet after their training is completed. As men of each group leave the area, their places on the choir must be filled with new members.

During rehearsals each Monday and Thursday, the choir director auditions from 20 to 40 new men to keep the group up to strength (usually about 70 members). Student pilots who join the choir give up many off-duty hours to practice. They are granted no special privileges and must keep their grades above average. Yet this group—which has been called nine-tenths spirit and on-tenth talent—has received enthusiastic applause in each of its many personal appearances.

The Aviation Cadet Choir was originally organized to sing during services at the Pensacola Naval Air Station chapel. Today it continues this important weekly appearance, but its fame has spread from coast to coast.

USAF Award for Navyman

A naval officer who cut a 30-minute job down to 30 seconds for MATS pilots all over the world has been awarded the Commendation Ribbon by the Air Force.

The Navyman is LT Robert G. Rich, USN, who devised a series of graphs to tell MATS pilots at a glance the amount of fuel needed for a flight, the time the flight would take, true air speed and optimum altitude for all aircraft in the MATS Transport Fleet.

In 1953 while stationed in Hawaii, LT Rich's squadron switched from R5Ds to R6Ds. The change-over resulted in a multiplication of fuel-load possibilities, thus complicating fuel planning. The smaller R5D could carry just so much gas, while the larger R6D could carry varying amounts. In addition, the "Liftmaster" had different fuel needs because it was pressurized and could fly at higher altitudes.

The problem of how to calculate fuel load quickly for the larger transports absorbed LT Rich, who studied engineering before entering the Navy. After four or five tries he hit on a system of graphic and tabular schemes, which Navy transport squadrons based at Hickam AFB, Honolulu, put through rugged tests. The graphs were an immediate success.

Soon afterward, LT Rich was transferred from Hickam AFB to the staff of the Senior Naval Officer at MATS Headquarters, Washington, D. C.

Before long MATS had him drawing up graphic tables for its transports. The handy albums, or "Fuel Planning Manuals," also include checks on equivalent and true air speeds, plus checks on lessening horsepower requirements as plane loads lighten in flight.

Navy Ships Rescued 242 Survivors of Ocean Collision

The escort vessels, USS *Edward H. Allen* (DE 531) and USS *Heyliger* (DE 510) and the Military Sea Transport Service ship USNS *Private Wm. H. Thomas* (T-AP 185) were among the first ships to arrive at the scene of the collision between the ocean liners *Stockholm* and *Andrea Doria*. The ships rescued about 242 survivors from *Andrea Doria*, including the captain and first officer.

Pvt Thomas was some 20 miles from the site when she received the SOS message from the stricken *Andrea Doria*. *Pvt Thomas*, carrying military passengers and dependents from Bremerhaven to New York, reached the crash scene about two hours after the collision. She picked up 165 survivors and departed for New York at 0400.

Allen and *Heyliger* were returning from a Reserve training cruise to Newfoundland and were 52 miles from the disaster scene when she received the relayed SOS message some three hours after the collision. Steaming at flank speed, they reached the badly listing *Andrea Doria* at 0500.

Both *Allen* and *Heyliger* sent out lifeboats to pick up survivors and rendering other assistance. *Allen* was designated to take the survivors aboard for the return trip.

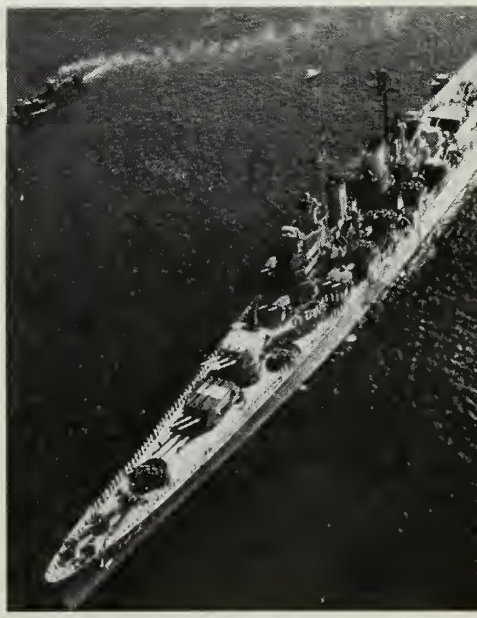
Allen's whaleboat began towing life boats, laden with survivors from the sinking *Andrea Doria*, to the other merchant ships standing by to receive them.

When the captain of *Andrea Doria* realized that all hope of saving his ship was gone, he, along with his first officer and the 77 remaining crew members were taken by whaleboat to *Allen*.

The escort vessels which are attached to the Third Naval District as Reserve training ships, remained in the area until *Andrea Doria* sank in 40 fathoms of water at 0710 on 26 Jul 1956.

In addition to the Navy ships which took an active part in the rescue operations, 10 other destroyers from DesLant had been ordered to the area but were recalled before they reached the scene.

USS TOLEDO (CA 113) looks sharp as crew members man her rail. Cruiser is currently assigned to Pacific.



STATESIDE-BOUND—Sailors at Navy's Yokohama Post Office toss air mail for USA in bags. PO handled over two million pounds of airmail in '55.

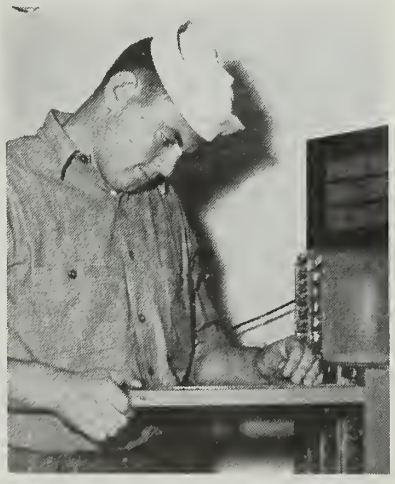
Navy Postal Unit Handles 10,500,000 Pounds of Mail

"You write—we'll expedite!"—That's the motto of the Navy's Far East Post Office.

Within a set of cream colored buildings at the U.S. Naval Base, Yokohama, Japan, a team of Navy mailmen functions as the "master postman" in the Western Pacific by delivering mail to or from home.

Last year, this team—working like a complex precision instrument—handled some 60 pounds of incoming and outgoing mail per minute. In a year's time that amounts to over ten and one-half million pounds of mail.

Organized so that the mail will be distributed in the shortest possible time, the Navy's post office at Yokohama has sections for incoming Navy and Marine Corps mail, incoming and outgoing parcel post packages, a rewrapping section (for parcels poorly wrapped or damaged in delivery), a registered letter section, and an outgoing mail section. There is also a filing department which keeps accurate tabs as to the whereabouts of every ship assigned to the U. S. Pacific Fleet. The outfit is especially proud of its registered letter section—it handled almost a million registered letters with only three being misplaced.



FLEET-BOUND—Master locater for incoming mail tells Navy mailmen location of ships in Pacific Fleet.

Homeward bound shipments of china and glassware constitute most of the traffic in the parcel post section, while packages of fruit from home cause the biggest headaches to the rewrapping section, as most "fresh" fruits are spoiled by the time they reach Japan. On every package that is damaged, spoiled or rewrapped, that department sends a letter of explanation.

During training maneuvers earlier this year about 31,000 sailors and Marines were kept happy because of the well planned operations of the Yokohama post office. Mail was delivered daily from a mobile floating post office set up aboard a landing ship, and was received on the battle-scarred shores of Iwo Jima three days after being mailed back in the states.

Jet Photo Recon Plane

The Navy has a new photo reconnaissance plane which can fly nonstop across the U.S. in less than four hours and at the same time photograph a continuous 10-mile-wide strip of the terrain below.

It is the swept-wing F9F-8P *Cougar*, a photo-recon version of the F9F-8 fighter.

The photo jet is capable of using as many as seven cameras at one time. Among them are the newest and largest designed for use by fighter-photo planes. They are operated by a semi-automatic push button installation — the Navy's latest camera control device. While the pilot is taking pictures, a new type image-arresting device automatically compensates for the plane's forward speed and altitude.

The Navy's newest photo reconnaissance plane can shoot pictures continuously for five hours. It is capable of taking as much as 1000 feet of movie film and 2400 feet of stills during one photo run. On a normal run it will crank out between 700 to 1200 feet on its 9-by-18-inch cameras during 25 minutes of actual picture taking. By utilizing flash cartridges it can also take night photos.

Despite the photo-*Cougar's* redesigned and lengthened forward fuselage, its flight characteristics match those of its transonic fighter counterpart. The actual speed capabilities of the aircraft are classified. However, in April 1954, an earlier model set an unofficial nonstop cross-country record. Averaging 645 miles per hour, the *Cougar* went from coast to coast in three hours, 45 minutes and 30 seconds.

Instrument Flight Safety Award

For exhibiting the most skill in instrument flying while undergoing flight training during 1955 at the Naval Air Training Command, Pensacola, Fla., LTJG Dennis G. Glover, USN, has been presented the Hart Memorial Award.

This award, consisting of a plaque and an aviator's chronograph, was established as a memorial to LTJG Silas C. Hart by his parents after he was killed in an aircraft accident in 1953.

LTJG Glover's name is inscribed on a large permanent plaque mounted at the NAATC headquarters. He is electronics officer of FASRon 11, based at Atsugi, Japan.

Navy Hero — Son of Ireland

A statue of Commodore John Barry (see page 15) will be presented this month to the Republic of Ireland by the United States Government. The Honorable William Howard Taft, III, American Ambassador to Ireland will make the presentation with Rear Admiral John B. Heffernan, USN, (Ret.), representing the Chief of Naval Operations. Other Navy officials will include Admiral Walter F. Boone, USN, Commander Naval Forces, Eastern Atlantic and Mediterranean, the Navy representative, and Commander Edward L. Beach, USN, Naval Aide to the President, as the personal representative of President Eisenhower.

The statue and pedestal are scheduled to be unveiled in a ceremony on 16 Sep 1956 at Wexford, Ireland.

Inscribed on both the east and west face of the statue will be a bronze circular wreath enclosing the words "Commodore John Barry, United States Navy, 1745-1803." On the south face are the words "Presented to the People of Ireland by the United States of America, 1956, in recognition of Commodore Barry's outstanding contribution to the naval annals of his adopted country. He was born in County Wexford and is buried in St. Mary's Churchyard, Philadelphia, Pennsylvania."

On the north face of the statue are the words "In command of the *Lexington* in 1776. Barry captured the first naval vessel to be taken by an American man-of-war. In 1783 he fired the Navy's last shot of the Revolution. From 1794 until his death in 1803, Barry was senior Commodore of the United States Navy."

The statue of Commodore John Barry was transported from Boston, Mass., to Ireland in the destroyer USS *Charles S. Sperry* (DD 697).

STRANGE LOOKING craft is Navy's new flying radar laboratory with a 15-foot mast that raises and lowers in flight and houses meteorological instruments.

DDs Prove Battle Readiness

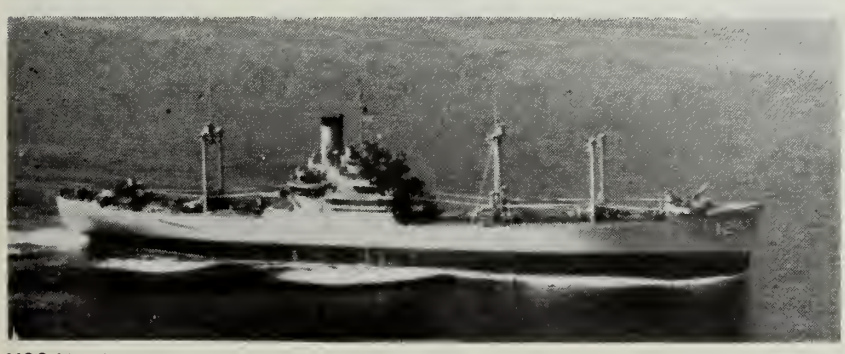
Winners of the "E" for over-all excellence in the intra-type destroyer battle-readiness competition for fiscal year 1956 have been announced. The competition is conducted during each fiscal year to determine the ships that excel in gunnery, engineering, communications, repair, administration and operations readiness inspections.

The pennant is awarded each year to some 10 per cent of the ships of the Fleet. Winners are determined on a point basis. A ship accumulates them in three different ways—through exercises and trials in which it takes part, through inspections by senior officers and through over-all administrative efficiency.

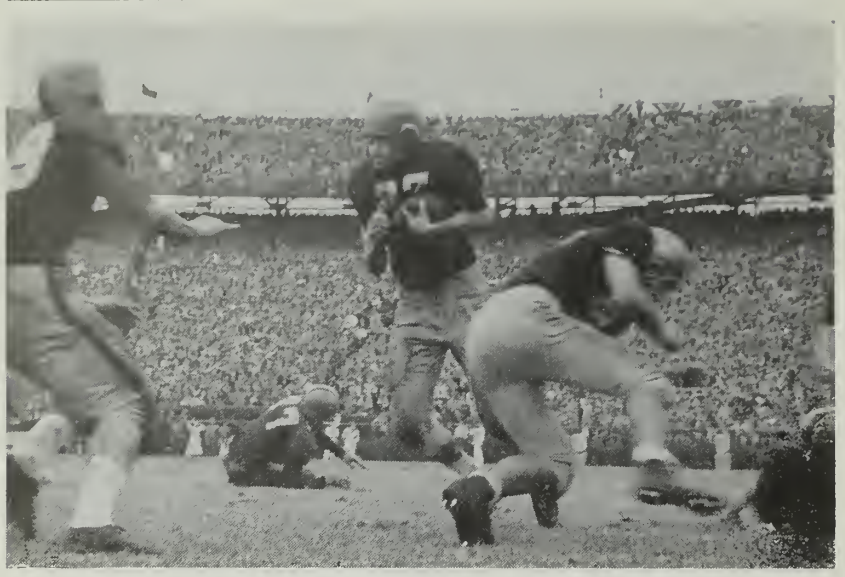
Ships finishing first and second in the squadron destroyer battle-readiness competition were awarded plaques and allowed to paint the letter "E" on the ship's bridge bulwark.

Plaques have been forwarded to appropriate "flag officers" of the following first-place ships for presentation: USS *Hank* (DD 702), *Harold J. Ellison* (DD 864)—second award; *Stribling* (DD 867)—third award; *Newman K. Perry* (DDR 883)—second award; *Fechteler* (DDR 870), *Gainard* (DD 706), *Hawkins* (DDR 873), *Massey* (DD 778), *Miller* (DD 535), *Henley* (DD 762)—third award; *Hale* (DD 642); *Fred T. Berry* (DDE 858); *Corry* (DDR 817), *Robt. A. Owens* (DDE 827), *Gatling* (DD 671), *Sigourney* (DD 643), *Monssen* (DD 798), *New* (DDE 818)—second award; *Francis M. Robinson* (DE 220)—third award; *Coates* (DE 685), *Cromwell* (DE 1014), *Albert T. Harris* (DE 447), *Brough* (DE 148) *Pillsbury* (DER 133), *Joyce* (DER 317), *Yosemite* (AD 19), *Shenandoah* (AD 26), *Wilkinson* (DL 5).

"E" plaques have also been forwarded to the following second-place ships: USS *Borie* (DD 704), *Dyess* (DDR 880), *Steinaker* (DDR 863), *Goodrich* (DDR 831), *Samuel B. Roberts* (DD 823), *Compton* (DD 705), *William R. Rush* (DDR 714), *Zellars* (DD 777), *Lewis Hancock* (DD 675), *Willard Keith* (DD 775), *Benham* (DD 796), *Keppler* (DDE 765), *Charles P. Cecil* (DDR 835), *Murray* (DDE 576), *Cotten* (DD 669), *Bearss* (DD 654), *Charles J. Badger* (DD 657), *Holder* (DDE 819), *Darby* (DE 218), *Raymond* (DE 341), *Tabberer* (DE 418), *Snowden* (DE 246), *Chambers* (DER 391). These DDs are ready.



USS WRANGELL (AE 12) sails toward port. 'Don't tangle with the *Wrangell*' is the ship's by-word that became popular while she supplied ammo in WW II.



'ANCHORS AWEIGH'—As football season arrives again Navymen through out the Fleet will pick up the pig skin in intramural and interservice games.

All-Navy Rifle Champs

Chief Warrant Officer Jack R. Kanavel, USN, fired a 465 out of a possible 500 to win the individual All-Navy Rifle Championships held at the Fleet Air Defense Training Center, Dam Neck, Va. Kanavel is stationed at the Naval Hospital, Corpus Christi, Texas.

Team honors were taken by the 11th Naval District entry, representing the West, with a score of 1799 to 1730. Representing the East was the team from the Ninth Naval District.

This was the first All-Navy competition in which Kanavel has participated. Previously, from 1948 to 1955, he had fired only in Marine Corps matches. In 1953, while serving with the Sixth Marine Regiment at Camp Lejeune, N. C., Kanavel achieved the coveted "Distinguished" title. This honor was earned during his shooting in the Southeastern Division Rifle Matches.

Runner-up for individual rifle shooting honors was Donald McCoy, AOC, USN, also a member of the 11th Naval District team. McCoy fired a 362 to lead by two points N. C. Wettestead, ICC, USN, a member of the 9th Naval District team.

Rounding out the top 10 rifle shooters in this year's competition were Lt. J. B. Overton, USN; I. N. McKee, GMC, USN; A. W. Sievers, AOC, USN; R. L. Grigone, ABC, USN; D. R. Sherman, ABC, USN; A. Sasules, AOC, USN; and Captain E. E. Hedblom, MC, USN.

Members of the winning 11th Naval District team besides McCoy, Sievers, Sherman and McKee were D. O. Pineo, PMC, USN, V. H. Farr, GMC, USN, A. A. LeTourneau, BMC, USN, and J. F. Darton, GMC, USN.

Boatman's Holiday

When Lieutenant Gerald W. Wise, USN, reported to Composite Squadron 62 at NAS Jacksonville from Photo School at NAS Pensacola, fellow squadron members learned he had arrived the hard way.

Rather than drive the 390 land miles across northern Florida in one day, he had chugged 865 miles on a 20-day cruise through the Gulf of Mexico and the Intra-Coastal Waterway in his 21-foot cabin cruiser.

Plans for his ambitious adventure began in the spring when he purchased the boat, powered by a 66-horsepower engine. In addition, he bought a small icebox, alcohol stove, bunks, fishing gear, and "about four pounds" of charts.

With his wife and dog aboard ("Don't ever take a dog on a boating trip," advises Wise. "We had hair in everything."), the "trio" left Pensacola immediately following graduation ceremonies from the five-month aerial photo course which he took.

Traveling the Intra-Coastal Waterway, they made their first stops at Fort Walton and Panama City. Three days later found them at Carrabelle, where they spent five days waiting for strong winds to subside before venturing into the Gulf for the 200-mile haul to Cedar Keys and Tarpon Springs.

Except for short jaunts into the Atlantic, they remained on the waterway from Tarpon Springs to Jacksonville. Stops along the eastern coast of Florida were made at Sarasota, Boca Grande, Fort Myers, Clewiston, Melbourne, New Smyrna and St. Augustine.

"Our trip across the heart of Florida—through Lake Okeechobee—proved exciting and interesting," Wise said, "despite the fact that we hit a rock which bent the shaft and cracked a propeller blade."

"All in all, it was a very enjoyable

JUDO EXPERTS—Two Navymen participating in ancient and popular sport assume traditional position used by Japanese to thank opponent for match.

trip, but I wouldn't want to try it in a boat smaller than 21 feet," he added. "Good weather is a must in a boat that size and I think that we'll equip our boat with a two-way radio for our next trip."

The trip took a total of 20 days. Lieutenant Wise figured that it cost about $10 a day, but this figure included all expenses such as fuel, food and repairs. A trip by car from Pensacola to Jacksonville would have been only about 10 per cent of that figure—but certainly not so adventurous.

For Hunters and Anglers

Navymen who are hunting and fishing enthusiasts are reminded that they should observe all federal, state and local laws regardless if they hunt or fish on or off the military reservation.

A recent Department of Defense directive, published within the Navy as OpNav Inst. 5800.2A, stressed current policy regarding hunting and fishing on military reservations.

Although hunting and fishing at each station is authorized and controlled by individual commanding officers, the instruction emphasized that if it is permitted, it should be conducted in accordance with federal, state and local laws, as well as those of the service concerned.

It must be remembered that on certain military installations where state officials have no authority, state bag limits, seasons and other conservation measures are operative as federal laws and enforceable by federal officials. At some stations, both state and federal officials have jurisdiction to enforce state hunting and fishing laws, while at other bases, game laws are enforceable by state officials only.

The DOD directive requested COs "to seek cooperative agreements between state and local jurisdiction and civilian sportsmen's groups for the conservation of wildlife and the promotion of all forms of healthy outdoor recreation."

The instruction also stated that restrictions on the use of areas under military jurisdiction should be held to a minimum and civilian sportsmen should be prohibited only when necessary to insure safety, security, protection of government property, and efficient accomplishment of the station's mission.

For a roundup on hunting and fishing licenses by states, see ALL HANDS, September 1955, page 54.

SIDELINE STRATEGY

THE FIRST TROPHY ever to be awarded by Bureau Special Services to a Navyman for bowling a perfect game was given to Enoch F. Miller, PNC, USN. Chief Miller, who is attached to the Thirteenth Naval District personnel office, scored his 12 consecutive strikes in Seattle, Wash.

The qualifications for gaining one of these trophies have been expanded. In addition to a perfect 300 game, any bowler who has a three game set of 700 or better will also be eligible for a trophy. Chief Miller qualified in both respects.

It was on 10 July that Miller performed his feat. He had rested from bowling for the previous week, having competed in a 40-game Endurance Classic in Ogden, Utah. Although he had a tender thumb as a result of the endurance bowling, his first game on the 10th was a respectable 189. By the second game, either the tenderness was gone or else he had a numb thumb, and he rolled seven consecutive strikes.

On his eighth ball, thoughts of a perfect game caused too much tension and his ball left a 6-7-10 split. He came back with his second ball, however, to pick up the split and with marks in the 9th and 10th frames, he finished the game with a 254 score.

Came the third game and again Miller fired the black ball into the pocket for seven consecutive strikes. Once again he was confronted with the "exasperating eighth," as he called it.

"I made up my mind that I wouldn't clutch up," reported Miller. "So I drank a coke and just took my time. My first ball in the eighth crossed over to the Brooklyn side but still carried through without hesitation.

"My 9th and 10th balls were back in the pocket, however, the sweeper action from a thin Brooklyn hit on the 11th strike left most of the pins lying in the alley. But they were all down.

"After brushing the dust off my knees, I delivered the 12th ball which I felt quite sure would be a strike from the time it left my hand. The spectators seemed to think so too, and it was."

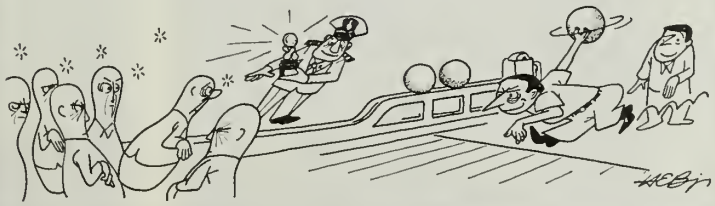
Miller's perfect bowling and 723 set didn't just come. Some 18 months ago, while carrying a 148 average, he began a concentrated practice program. Since that time, he's bowled over 4000 games, an average of some 222 games per month. Practice obviously does make perfect!

★ ★ ★

Sailors on USS *Worcester* (CL 144) are enjoying a new recreation feature which few other ships in the Fleet can boast. The ship has a skeet range located near the fantail. The range is operated whenever the ship is at sea.

Interested nimrods purchase shells at the traps and use shotguns provided free by the ship's Special Services. Just as soon as they get their "shoot-in' eyes" in shape, *Worcester* sailors are planning to form a team to enter in competition with shore stations and other ships at sea.

—Rudy C. Garcia, JOC, USN



Brief news items about other branches of the armed services.

AIR FORCE helicopter brings fresh food, mail, and supplies to men manning Texas Tower radar station.

THE ARMY MEDICAL SERVICE, with its 61,000 physicians, nurses, medical specialists and enlisted men, celebrated its 81st anniversary 27 Jul 1956.

While the primary mission of the Army Medical Service is the health and well-being of the soldier, other services and the civilian population as well have benefited from the Army research programs. Research projects range from safety devices on autos to actual medical research on Q fever (a pneumonia-like malady), artificial kidneys, yellow fever, smallpox, many other diseases and numerous drugs.

The Army Medical Service has one of the largest medical libraries in existence. It is used by students of medicine the world over, contains more than 650,000 bound volumes and is growing at the rate of more than 25,000 volumes per year.

From the library's photographic department has come the Medical Illustration Service. This service collects, publishes and exhibits illustrative material of medico-military importance which, whenever possible, is made available to other federal agencies, civilian institutions, and qualified physicians.

★ ★ ★

AN ARCTIC SHELTER which can be erected in 90 minutes by seven men under ideal conditions has been developed by the Army at the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Va.

Capable of withstanding winds of 100 miles-per-hour and snow loads up to 75 pounds per square foot, the building has been adopted by the Army for use as barracks, communications shelters and first aid stations.

At one of the experimental sites in Canada, the 20 x48-foot structure, which can be air-dropped in a disassembled condition, was erected in 65 man-hours by troops working in 35 degrees below zero weather. Furnished with the building is an oil-burning space heater which can maintain a 70-degree temperature in temperatures as low as 65 degrees below zero.

A modified version of this building is in use by the Navy to house personnel participating in the current expedition in the Antarctic.

★ ★ ★

SUMMER TRAINING for approximately 3,500 members of the Air Force Reserve and Air National Guard units from seven states featured a full scale airborne training exercise at Fort Bragg, N.C., during which Reservists were integrated with regular Air Force organizations.

The 15-day annual active training period was aimed toward the production of combat-ready Reserve forces which can quickly and smoothly be absorbed into the active Air Force in the event of an emergency.

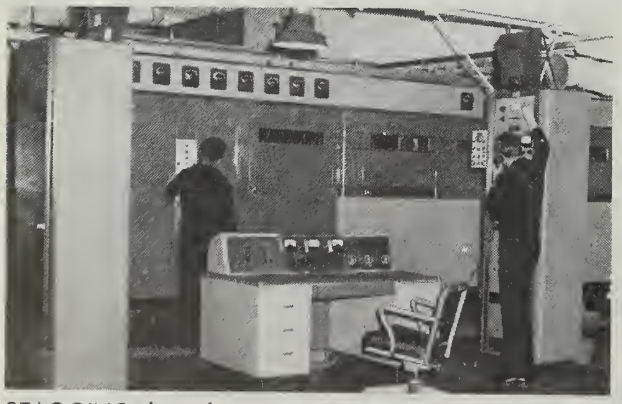
Highlights of the operation included assault missions and drops by approximately 8000 paratroopers of the Army's 18th Airborne Corps. More than 250 troop-carrying aircraft were employed during the major training exercise.

★ ★ ★

NEW ARMY RULES will lessen the emphasis on speed but stress the need for accuracy when shooters compete for the famed "Dogs of War" trophy at the Camp Perry National Matches this month. The rules were changed after the National Board for Promotion of Rifle Practice (NBPRP) detected weak spots in the 1955 Matches.

The trophy was revived last year after a 15-year lapse. It is awarded by the NBPRP to the team winning the Infantry Trophy Match. The U. S. Army Blue team won the trophy in 1955.

Under the 1956 rules, each six-man team receives its full quota of 384 rounds of service ammunition at the first stage, on the 600-yard firing line. Shooting on this line will be at eight kneeling-type silhouette targets (Army F target) which will be exposed for 50



SEAGOING broadcasting station USCGC *Courier* (WAGR 410) relays Voice of America over Iron Curtain.

seconds. The team then moves to the 500-yard line, then to 300-yards and the final stage at 200 yards.

Scoring will be four points per hit at 600 yards, three at 500, two at 300 and one at 200 yards. There will also be a bonus award for fire distribution.

★ ★ ★

A NEW ARTILLERY PROJECTILE made of paper and water has been developed by the Army to provide an inexpensive shell for test firing.

Made at present only for the 105mm howitzer, the new shell costs about $1. This compares with the $10 cost of the conventional metal projectile. Its weight and resistance to the expansion of the propellant gasses make it possible to test operation of the howitzer's recoil system.

The 105mm howitzer using this shell may be fired where the range is only a matter of a hundred feet or so, for the muzzle blasts forth only water and bits of paper.

The shell consists of two wax-impregnated, kraft paper tubes. These are four inches in diameter and 42 inches long and resemble elongated ice cream containers. The ends of the tubes are sealed with three one-eighth inch cardboard disks.

The projectiles are filled with water through a three-quarter inch hole in the forward end which is then enclosed with a cork.

The new type of projectile is filled with water just before firing and then loaded into the gun's muzzle instead of the breech. Standard rounds are loaded into the breech.

The water spray from the projectile is harmless, but the cardboard end closures may damage targets at a distance of 75 feet. At 125 feet there is almost complete safety against flying particles of cardboard.

★ ★ ★

RESEARCH on two new type aircraft—designed to combine the vertical take-off and landing abilities of the helicopter with the high speed capabilities of the transport airplane is being conducted by the Army.

The project calls for construction and evaluation of research aircraft at a much reduced scale in size and time, and at 10 to 20 per cent of the cost required for developing a complete airplane.

Differing in some respects from the "convertiplane," with which the Army is now experimenting, the new research aircraft will test a number of unique high-lift devices, for quicker take-offs and shorter landings.

★ ★ ★

THE USAF *THUNDERBIRD* aerial demonstration team has converted to F-100 Super Sabre jets, thus becoming the first aerial demonstration team to fly supersonic aircraft.

Since activation in June 1953, the *Thunderbirds* have flown 223 demonstration flights before combined audiences of more than 10,000,000 persons. Previously the team was equipped with F-84F *Thunderstreak* aircraft.

The team will demonstrate the same precision flying techniques in the new aircraft that were previously shown to spectators throughout the United States and in 12 Latin American countries.

Their 17-minute demonstration consists of a series of loops, slow rolls, barrel rolls, clover-leaf turns, a 360-degree turn within the confines of the airfield, with the demonstration being capped by a "bomb burst" maneuver.

MIGHTY MOUSE rockets blast from USAF F-89D *Scorpion*, fighter-interceptor, operating with CONAD.

During the "bomb burst," the aircraft climb straight up, split toward the four points of the compass, roll and then come straight down, individually to roar past simultaneously from four different directions at a point directly in front of the spectators.

The *Thunderbirds* fly their performance in a tight diamond formation with wing tips overlapping and the aircraft just five feet apart.

★ ★ ★

AIR FORCE PILOTS will soon have a new automatic warning signal to remind them to "lower wheels" when about to land.

The warning will come from a tiny 13-ounce device that puts a bothersome 250-cycle interrupted tone into the pilot's headset when throttle setting, airspeed and altitude indicate he's about to attempt a landing. The sound ceases when the wheels are down and locked.

The device operates independently and will function even if the plane's electrical system is damaged or the radio is disabled.

The new warning device is adaptable to various aircraft and is expected to replace the present wheels-down horn in the cockpit.

ARMY MISSILE master stations use photo-electric guns to enter air targets into guided missile tracking system.

THE BULLETIN BOARD

Sea Shore Desk at San Diego Will Handle Moves of EMs in Pacific

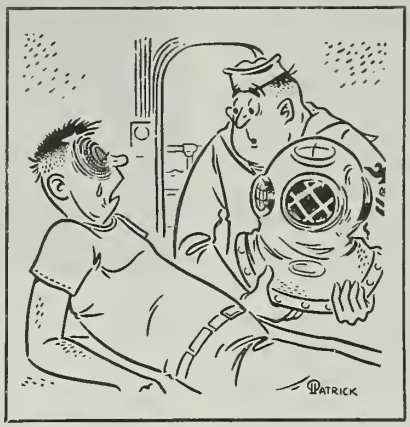
To increase the efficiency of personnel distribution, a new Pacific Fleet enlisted distribution office is being established at NAS San Diego, Calif. Scheduled to begin operations on 1 December, the new office will handle the distribution and assignment of all Pacific Fleet enlisted personnel.

One of the primary objectives of the office will be to give maximum consideration to the desires of each man when he is assigned or reassigned. Administratively speaking, the office will:

- Permit closer coordination between the Fleet and type commanders in personnel assignment.
- Eliminate the long lines of communications.
- Allow the Navy to make better use of its EMs through a more accurate forecast of the personnel needs of Pacific Fleet commands.
- Permit improved services for the distribution officers.
- Permit the consolidation of all Fleet PAMIs into one PAMI located at the San Diego office.
- Reduce the "pipeline time" and excessive paper processing by mechanization of the present methods. "Pipeline time" is that period during which people are awaiting orders or in transit to a new assignment.)

Up to this time, the Commander Service Force, U. S. Pacific Fleet in Pearl Harbor has been responsible for the enlisted men in all ratings except aviation ratings (Group IX), which come under the Commander Air Force, U. S. Pacific Fleet in San Diego. These two commands have made personnel available to the type and area commands for assignment to duty station.

Under the new system, the personnel functions of these two commands will be combined at North Island in its new Fleet Enlisted Distribution Office. Also, the distribution officers of the type commands will also be located in the same office. In effect, the new program will permit all the Fleet distribution officers to work in close coordination in the one office.



"The bends? . . . Naw, forgot to put out my cigar before I went down."

This office will be on a direct data transceiver line with the Bureau of Naval Personnel. This permits the transmission and receipt of personnel data by means of punch cards at the rate of eleven 80-column cards a minute.

The Navy is increasing the use of punch cards to process personnel data (see ALL HANDS, August 1956, page 39.) The greater speed provided permits more personal data on each EM to be considered in his assignment. These cards are capable of rapid processing by electrical accounting machines.

This means that each EM can be assured that more information on his personal desires and career considerations are reaching the distribution officers. (Also, the cards include information on a man's skills, his dependents and other pertinent facts.) Further, because machines can do the clerical processing much faster, the distribution officers will have more time for considering personal problems and needs. The ability to communicate data faster by transceivers means less time in awaiting orders or more advanced information on his new duty assignment.

The present plans call for data transceivers at the key distributional points, such as San Diego, Norfolk, San Francisco, Pearl Harbor, Long Beach, Great Lakes, Memphis, Pensacola, and Washington, D. C.

Service Forces to Make Direct Assignment to New Construction, Ships Undergoing Conversion

Enlisted personnel assignments to all new construction and vessels undergoing major conversion will be made directly from active Fleet personnel in the near future, in accordance with a recent decision of the Chief of Naval Personnel. The decision to delegate greater detailing responsibility to appropriate service force and air force commanders was made in accordance with a plan suggested by the Commander Service Force, Atlantic Fleet.

Heretofore, enlisted personnel billets for new construction and conversions have been filled primarily from assignment sources available to the Chief of Naval Personnel, with men being drafted from the Fleet only as a last resort.

The new setup, which is effective for all vessels except submarines, will be used in manning ships scheduled for commissioning on and after 15 Mar 1957, and will be effective for all ratings except those listed below. This change in assignment procedure is expected to result in the attainment of improved levels of training in new ships as a greater percentage of petty officers assigned will have had recent Fleet experience.

Ratings *not* affected by the new manning plan are:

- Hospitalmen and Dentalmen.
- Those under direct assignment control of BuPers.
- Those requiring a course of instruction conducted at a service school for which service force commanders do not hold quotas.
- Those requiring special training in connection with such new developments as nuclear propulsion, guided missiles systems, and other new equipment installations.

BuPers Inst. 1320.4A is being revised to reflect the new manning procedure.

The Chief of Naval Personnel will continue to make the necessary local adjustments of personnel available to the Fleet in order to provide adequately for additional requirements.

Chiefs and Top POs Get Together for Navy Career Conference

A SPECIAL Department of Defense committee is currently studying the viewpoints, opinions, and recommendations of about 220 career enlisted Navymen who met during August to determine what deters and what stimulates reenlistments.

These "findings" came out of conferences held at NTC Bainbridge and NTC San Diego. Approximately 110 CPOs, PO1s, and PO2s of the "East Navy" (Atlantic commands, Mediterranean area and Sixth Fleet, Panama and Caribbean area, and naval districts east of the Mississippi River) met at Bainbridge. San Diego was the meeting place for some 110 "West Navy" representatives from Alaska and the Far East area, the Seventh Fleet and other Pacific Fleet commands, and naval districts west of the Mississippi.

During these meetings, the hand-picked senior POs representing more than 60 different ratings, discussed what they considered to be the "facts of life" that make a man reenlist or fail to reenlist. After detailed studies and debates, they made recommendations which they thought should be taken to strengthen the favorable aspects and correct any shortcomings of the Navy.

The two Navy conferences were similar to studies also made during August by top three pay-graders of the Army, Air Force and Marine Corps.

These meetings were held at the request of the Department of Defense Advisory Committee on Professional and Technical Compensation. This committee is making a study of current military pay and personnel policies at the request of the President and the Secretary of Defense.

The committee felt that senior enlisted men should be recognized as a source of expert opinion on personnel and reenlistment problems.

More than 140 senior petty officers from throughout the Navy were selected by their own commands as delegates to the conferences on the basis of their individual experience, personal character, leadership, technical qualifications and familiarity with the opinions of other enlisted men. In addition to the hand-picked delegates, 65 "NavCats"—members of Navy Career Appraisal Teams—were individually selected and designated to attend.

The Navy meetings were all-enlisted conferences. The delegates were given the opportunity to set their own rules for panel discussions. Only a minimum of officer guidance was given. That, in the form of assisting delegates in organizing and orienting their efforts, was done by a handful of officers (and enlisted men) from the Career Activities Branch of the Bureau of Naval Personnel and the Navy's Ad Hoc Committee on Recruiting and Retention.

During the three-day meetings, suggested topics were presented to and by the career sailors. Those that warranted detailed study were turned over to panels of 11 or 12 delegates for discussion. When these panels completed their studies, the results were read to the assembled delegates for "all hands" discussions and comments. Each panel chairman had 15 minutes to present his panel's findings. Each presentation was then followed by a 15-minute discussion period.

The panel findings and subsequent discussions and comments from each conference were then combined into one large report and submitted to the Cordiner Committee. This committee, consisting of civilian and military experts on pay and administrative matters, is now studying and weighing the recommendations of the career enlisted men. If warranted, the committee will recommend that each service secretary take administrative action on matters which the services themselves can handle. For those matters that cannot be corrected or that are not within the jurisdiction of the forces, the committee will draft career-legislation for submission to Congress next Spring.

HOW DID IT START

DDR—Radar Picket Destroyer

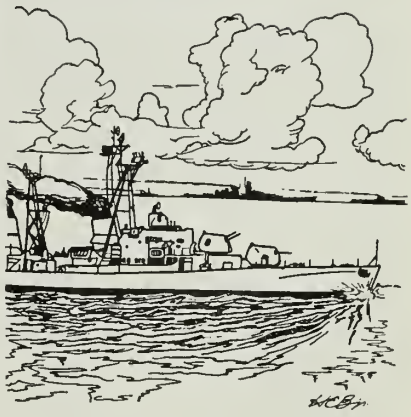
DDRs—Radar Picket Destroyers—came into being in the closing days of World War II when it became necessary to extend the area of radar surveillance of a naval task force beyond the range of any individual radar.

DDRs are basically the same as most long-range, high-speed destroyers—capable of speeds well over 30 knots—but have additional radar antenna masts and more communications equipment.

Although converted for detection and warning duties, the DDRs retained their basic anti-submarine detection equipment and other armament. This consists of six five-inch guns, several three-inch rapid fire antiaircraft guns, depth charges, hedgehogs, and a bank of torpedo tubes as well. With such, they present a threat to enemy forces from below as well as above and on the surface.

Radar picket destroyers usually make up the outer rim in the formation of a task force. They operate many miles in advance, on each side and behind the main or heavy elements. If they detect approaching enemy ships or planes, a radio report is flashed to the task force so it can intercept them or take other defensive measures.

DDRs provide the same screening and advance warning services to task forces as



their smaller brothers (DERs) perform for the nation. (See p. 20)

Both the DDRs and the radar picket escort vessels can keep in close touch by radio and radar with the fighter aircraft or other units sent out to meet the enemy. They can relay information as to the location and movements of the enemy and direct them to an interception.

In addition, DDRs serve as an advance element to shoot down or destroy the enemy forces before they get a chance to penetrate the task force.

Greater Benefits for Your Family Are Provided in New Law

THE SERVICEMEN'S AND VETERANS' Survivor Benefit Act, which provides a complete change in service-connected death benefits for armed forces personnel, has been signed by the President and becomes effective 1 Jan 1957.

This bill, according to the Defense Department, is probably the most important armed services "morale" legislation passed by the second session of the 84th Congress. It fills a long standing need for the improvement and protection of the servicemen's family. As such, it provides a strong inducement to attract and retain personnel of the caliber required for the armed forces.

The Servicemen's and Veteran's Survivor Benefit Act revises all current government survivor benefit programs which relate to *service-connected deaths.* That is, the new law applies in the case of any death which occurs while serving on active duty and any death which is the result of a service-connected disease or injury, or the result of an existing disease or injury aggravated by active duty.

The law, however, does *not* change in any way the existing regulations concerning *non-service connected deaths.* (That is, deaths which occur while on retirement, inactive duty or after discharge *unless* they are the result of service connected diseases or injury).

The new legislation will have a broad impact. It will affect survivors of present and future active duty servicemen and certain veteran and retired personnel whose deaths are service connected. The law will also give substantial benefit increases to 30,000 widows, 85,000 orphans, and many of the 285,000 dependent parents now on VA rolls.

"I'd prefer a demitasse, if you please."

The new act (P.L. 881) is designed to improve and streamline present benefit systems. It provides a uniform, equitable and efficient program for the future by placing all survivor benefits in relationship to the lifetime income of the deceased serviceman. Hereafter, survivor death compensation will consist of increased payments from the Veteran's Administration and if there are children under 18 years of age, additional increased Social Security death payments will also be made.

The new form of death payments for widows, orphan children and parents paid by the VA will be called "dependency and indemnity compensation."

Major Benefits

Major benefits of the new bill, as compared to old laws include:

• ***Death Compensation for Widows*** —The new law increases monthly death compensation payments for widows from $69.60 per month to a minimum of $122 and a maximum of $266.

Up to the time of the new law (which goes into effect 1 Jan 1957) widows of service personnel in most cases would receive death compensation from the Veterans Administration. The VA death compensation would pay widows without any children only the flat amount of $69.60, if their husbands died during peacetime, and a maximum of $87.00 if death was during wartime. These flat rate monthly payments have been made regardless of the deceased serviceman's rank or rate or length of service.

Under the old law, a widow with one child received $96.80 for herself and one child and $23.20 for each additional child if the serviceman's death was in peacetime and a slightly higher rate for wartime deaths.

Under the provisions of the new law, if a serviceman dies while on active duty, or if a retired serviceman or veteran's death is service-connected, after 1 Jan 1957, (when the new law goes into effect) the widows will receive $112 per month plus 12 per cent of the serviceman's basic pay. That is, a monthly sum will be paid ranging from $122 for a seaman recruit's widow to $266 for widows of those in the highest pay grade.

Death compensation payments under the new system are in relationship to the basic pay of the serviceman at the time of his death and are the same regardless of whether death is attributed to wartime or peacetime service.

A childless widow, under the new law, will receive monthly VA death compensation payments ranging from $122 to $266 for the rest of her life

A Fast Look-See at Survivor Benefit Act

Here is a quick rundown of the highlights of the new Servicemen's and Veterans' Survivor Benefit Act:

• Revises the death compensation program for personnel who die on active duty or of service connected causes by providing widows with greatly increased monthly payments partially related to military pay; increases existing monthly payments for orphaned children; provides a sliding scale of benefits for parents subject to certain annual income limitations.

• Extends *full* Social Security coverage to those in the armed forces on a contributory basis.

• Revises the six-month death gratuity to range from a minimum of $800 to a maximum of $3000.

• Eliminates coverage of service personnel under the Servicemen's Indemnity Act (the so-called "$10,000 free insurance") and coverage of reserve personnel under the Federal Employees Compensation Act.

• Provisions of the new law become effective 1 Jan 1957.

For more details and the benefits of the new law compared to the old, see the accompanying article.

or until she remarries. Under the old laws, her VA death compensation was limited to $69.60 or $87.00 only.

The new law does not provide for additional payments for widows with minor children as the old law did. This is compensated for in the new law by merging former indemnity payments and the new increased "dependency and indemnity compensation" payments with the increased Social Security death benefits for widows with minor children. However, even without the provisions for added compensation for minor children, the minimum monthly compensation payable under the new law ($122) is greater than the amount allotted to a widow with two children ($120) under the old law. In addition, the widow with children under 18 years of age, under the new law, is entitled to increased Social Security benefits as outlined under "Social Security."

However, if the serviceman's widow has children over 18 years of age who are helpless or incapable of self-support, the new law provides for additional VA dependency and indemnity compensation at the rate of $70 per month for each child.

It also provides for VA dependency compensation payments at $35 per month for each child reaching the age of 18 and ineligible for Social Security payments, provided each child is pursuing a course of instruction at an approved educational institution. These payments will be made until such schooling is terminated or when the student reaches the age of 21, whichever is the earliest.

• ***Social Security*** — The new law puts all active duty military personnel under Social Security on a *full participating basis,* rather than providing a limited gratuitous credit and reduced benefits as in the past.

The free Social Security credit given active duty servicemen was only $160 per month regardless of their actual basic pay which might be a great deal more than that.

What's the difference between the old and new methods of figuring Social Security for service personnel?

Under the former provisions, you as a Navyman would be chalking up free Social Security credit of $160 per month. However, persons just entering the service, without any previous wage coverage, would not be entitled to any Social Security benefits until they completed 18 months' service. Also, upon retirement, except under certain limited conditions, the free Social Security credit given for military service would be lost, because a person drawing retirement pay could not draw old age benefits from Social Security credit based on military service. That is, the retired careerman would not be entitled to Social Security old-age payments upon reaching the age of 65, unless he received Social Security credit from civilian employment. Therefore, as far as the career Navyman is concerned, the provisions of the old law had little to offer.

The new law, on the other hand, offers the career serviceman dual advantages. By being placed under full Social Security coverage, all military personnel will have Social Security-insured status or its equivalent immediately upon entering the service. Hereafter, all Social Security credit based on military service will NOT be lost *regardless of retirement or when one leaves the service.*

The new act enables the serviceman to receive his retired Navy pay PLUS *old age insurance payments upon reaching the age of 65.* These monthly payments under Social Security range from $30 to $108.50 depending upon the amount of monthly wages for which Social Security taxes were paid and for how long they were paid. These monthly old age payments will be in addition to the career serviceman's retirement pay.

In addition, his wife, upon reaching retirement age (62), will also receive old age payments ranging from $16.50 to $54.30 per month. (However, the husband must be entitled to old age benefits, that is, he must be 65 before his wife can become eligible.)

If the serviceman dies while on active duty or upon retirement and is survived by a widow with children under 18 years of age, she will receive monthly compensation ranging from $30 to $200. The exact rate is determined by the former earnings of the serviceman and on the number of surviving children. This Social Security death compensation is *in addition* to the widow's VA death compensation outlined above.

As an example, let's presume a PO2 with ten years' service dies while on active duty. He is survived by a widow and two minor children. At the time of death his basic pay was $211. Under VA dependency and indemnity compensation provided by the new law, his widow would receive monthly payments of $138 ($112 plus 12 per cent of $211) and $156 Social Security death benefits, which would bring the PO2's widow's monthly income from these two sources alone up to $294.60. Under the old law, the most she would receive from these sources would be $248. That is, $120 VA payments for herself and two children ($138 under new law) and $128 Social Security survivor benefits ($156 under new law). So you see that even without the provisions for additional dependency and indemnity compensation for minor children, the widow under

"Huuu . . . Bout, . . . HAYsse!"

the new law has greater benefits.

What is the cost to you for these added Social Security benefits and old age insurance?

All in all, these added benefits will cost servicemen $116,000,000 each year. That sure sounds like—and certainly is—a lot of money. When broken down to each active duty serviceman in all branches of the armed forces, it's actually very little. Although the servicemen will contribute 116 million dollars each year, it will also cost the government an additional 116 million to finance these added benefits each year.

Under the new bill, a serviceman will contribute two and one-fourth per cent of his monthly basic pay beginning 1 Jan 1957. The amount you will be required to pay will be small. It will range from $1.87 per month for a seaman recruit (E-1) to the maximum of $7.54 for a CPO (E-7) with 30 years service. Note that these deductions will be made only on the first $4200 of the serviceman's basic pay and individual annual payments, regardless of one's rank or rate, will not be more than $94.50 per year.

• ***Six-Month Death Gratuity***—The new law still provides for a death gratuity payable to survivors of active duty service personnel equaling six months of a man's basic pay and special and incentive pay, up to a total payment of $3000 with a minimum payment of $800 in any event. (The new law also provides for this gratuity to be paid if death occurs within 120 days following discharge or release from active duty or inactive training duty, provided that death is service-connected.)

"His wife just found out he could cook!"

One of the benefits of the new six-month death gratuity provision is that it raises the minimum amount payable under old law from $468 to $800. However, as stated above, there is now a top limit of $3000 in the death gratuity payment. This top limit will not affect those Navymen whose pay (basic, special and incentive) is less than $500 monthly. Another major advantage of the new bill is that it cuts red tape and authorizes disbursing officers to make immediate payment of death gratuity to the designated beneficiary.

• ***Benefits to Orphaned Children and Parents***—Here again there are increased benefits under the new law. The old law provided peacetime benefits ranging from $53.60 monthly for an orphaned child to $96.60 for three children, with wartime benefits of $67.00 for one orphan and $122 for three. For each additional child the old monthly payments would be $18.40 (peacetime) or $23 (wartime).

Under the new law, effective 1 Jan 1957, there will be no distinction between peacetime and wartime death payments. The minimum payment to one orphaned child will be $70 per month and $130 for three. Each additional child will receive $25 per month.

As a comparison, the four orphaned children of a serviceman who died last year would be entitled to $115 per month, while under the new law they would be entitled to $155.

In the case of parents, the new Servicemen's and Veterans' Survivor Act is designed to give increased benefits for increased needs. The new law also revises regulations as to dependent parents.

Here's how the old and the new laws affect dependent parents.

In the past, one surviving parent received $60.00 monthly ($75.00 if death of the serviceman was in wartime) and two dependent parents receive $64.00 monthly ($84.00 wartime), provided they came within the limits of VA income requirements.

The new law considers parents as dependent parents in all cases where they come within certain income brackets, regardless of whether or not they were in fact dependent on their son at the time of his death.

Also this law calls for payments to parents to be made on a percentage formula, by setting the amount of compensation to the graduated scale of their incomes. A single parent is eligible if his annual income is $1750 or less, while two parents are eligible if their combined income is $2400 or less. The amount of compensation they receive is dependent

If You're Nearing Retirement, Check This

The free Social Security credit that Navymen have been receiving under current laws will not be lost, and in some cases will be an added advantage when the new Servicemen's and Veterans' Survivor Benefit Act goes into effect on 1 Jan 1957.

Since current laws prohibit retired service personnel who are drawing retirement pay from any Social Security benefits, it will be highly beneficial to those Navymen planning retirement to wait (if permitted by current regulations) until after 1 Jan 1957.

Those retired before the new benefit act becomes effective, leave the Navy without any Social Security credit or benefits whatsoever. In such cases, the retired Navyman will have to build up a certain amount of Social Security credit through civilian employment before he or his dependents are eligible for any Social Security benefits.

Under the new law, a Navyman retiring after 1 Jan 1957 will take with him or retire with six years of free Social Security credits based on the flat rate of $160 per month, regardless of his rank or rate. That six years of credit represent wages totaling $11,520 and will be a great contribution toward establishing eligibility for both old age and survivor benefits payable under Social Security. In some cases, depending upon the age at which a Navyman retires, the six-year free Social Security credit will be sufficient to warrant Social Security benefits and the retired Navyman will not have to seek civilian employment in order to qualify.

on their actual amount of income. The income range on which the percentage formula is based is from $750 to $1750 annually for one parent, and from $1000 to $2400 for both parents. The maximum monthly benefit allowed is $75 for one parent and $100 for both.

• ***Free Indemnity Discontinued*** — Discontinuation of the $10,000 Free Indemnity that was provided under the old laws may seem at first glance to be a big loss to the serviceman's survivors. But a careful study of the difference between the laws will show that the serviceman's survivors will be better off even without the indemnity. It must be remembered that the $10,000 would be payable in monthly installments of $92.90 during a period of ten years only and then would be stopped.

The examples quoted above, and the tables on page 50, will show that the total increased monthly payments payable under the new act are greater in the long run.

The following case will illustrate an all too common occurrence foreseen by the lawmakers.

A widow of a serviceman who died in peacetime has been receiving $162.50 per month (including the $92.90 indemnity) for the first ten years after her husband's death. At the end of 10 years, her monthly payments are suddenly reduced to $69.60 per month. Without the new law, that is the total amount the widow could expect to receive until reaching the age of retirement (62) when she would receive a small additional old age retirement benefit from Social Security.

Under the new system, the widow will receive a fixed amount ranging from $122 to $266 per month, depending upon her husband's rank or rate, until she reaches the age of retirement at which time she will receive *additional* old age benefits.

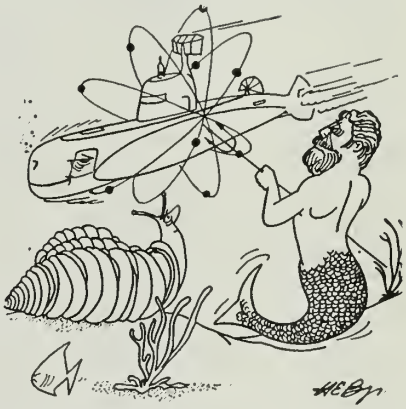
With the termination of the "Free Indemnity" under the new law, the government is utilizing the savings to increase the level of death compensation payments to widows, surviving children or parents. Despite any savings that might be made from discontinuing the indemnity, the government is paying in the first year a total of more than 75 million dollars MORE than it did by providing the "free indemnity" so that it may increase the long range benefits to the surviving families of servicemen.

• ***Insurance*** — Present holders of NSLI and USGLI policies now in force or issued before 1 Jan 1957 will not lose anything under the new law. However, the special five-year nonconvertible NSLI term policies, for which those now in the service have to apply within 120 days after discharge, will be discontinued under the new law. Those servicemen who surrendered their NSLI or USGLI policies while covered by the free indemnity will be able to reinstate their policies while still in the service or within 120 days after completing their active duty.

• ***Equitable Benefits to Survivors of All Military Personnel***—In passing the new law, Congress recognized that the old legislation made possible certain inequities which worked to the detriment of career service personnel. Some survivors came under

WHAT'S IN A NAME

Triton, First Nuclear Picket Submarine



Triton is the name that has been assigned to the Navy's first nuclear powered radar picket submarine. At present under construction, USS *Triton*, SSR(N) 586, will be the largest submarine ever built.

The longest submarines in the world today are also U.S. radar picket "boats," designed to provide screening and advance warning for fast carrier task forces and other types of Fleet operations.

Triton will have a displacement of about 5450 tons compared to 2470 tons for the 343-foot USS *Sailfish* (SSR 572) and *Salmon* (SSR 573) two of our newest submarines.

The SSR(N) 586 will be the third ship in the U.S. Navy to be named *Triton*. The first was the yard tug YT-10 which served for 31 years before being "retired" in 1930. The second *Triton* was the SS 201, a Fleet type submarine built in 1940 and sunk North of the Admiralty Islands in 1943. (There is also a Coast Guard cutter of the same name.)

The second *Triton* contributed much to our over-all submarine effort in the Pacific during World War II. She was in there fighting from the very beginning and continued doing so until she went down on 15 Mar 1943. At the time of the Pearl Harbor attack, *Triton* was on patrol off Wake Island. In her fighting struggle to help defend Wake, *Triton* had the distinction of being the first Pacific Fleet submarine to make a torpedo attack during WW II.

In the spring of 1942, *Triton*, during one patrol, struck at the enemy on 11 different occasions. She sank two sampans by gunfire, a Japanese submarine with one torpedo during a daylight submerged attack, torpedoed a cargo ship and two passenger-cargo ships — seven ships in 11 tries.

Triton did a bang-up job of celebrating the 4th of July in 1942 when she sank a Japanese destroyer to become the first U.S. submarine to sink an enemy ship during the Aleutians campaign.

In mid-December 1942, *Triton* was assigned a new type mission — that of aircraft control and life saving — the first of many such missions by submarines which accounted for saving more than 500 Allied aviators before war's end.

Triton covered a lot of territory and contributed much during her short, three-year career with SubPac. A veteran of the war's very beginning when she first encountered enemy forces off Wake, she sank a total of 11 ships — 31,788 tons of Japanese shipping — before she went down fighting against three Japanese DDs.

The SSR(N) 586 like the earlier *Triton* and all other submarines, is named after fish or other forms of marine life. Triton is a marine snail having a stout spiral shell that is usually very colorful. In Greek mythology, Triton was a sea demigod with the lower portion of his body being fish-like. Triton's special attribute was a trumpet made of a marine snail shell, which he blew when he wanted to raise or calm the waves.

So by nature and mythology, it is fitting that the Navy's first nuclear powered radar picket submarine is named *Triton*. Like the snail triton, the SSR(N) 586 will roam the seas with its antennae "feeling" for any dangers that may approach and like the demigod Triton, the radar picket sub will be an added means of controlling the seas.

the provisions of Federal Employees Compensation death benefits, while others had limited VA benefits. The survivors of Regular Navy and Naval Reserve personnel who died under the same circumstances on active duty previously had been eligible for varying amounts of death compensation.

The new legislation corrects this shortcoming by increasing death compensation benefits to be administered by the VA, and further, the law is applicable to all active duty service personnel, regardless whether regular or Reserve, with payments based on the income level of the serviceman at the time of death.

Here are examples of the benefits payable under the new Servicemen's and Veterans' Survivor Benefit Act in comparison with those offered by old laws.

The following figures are based on a PO2 with 10 years' service in the regular Navy. He is survived by a 28-year old widow and two children, ages 4 and 7. At the time of death, the amount of the PO2's monthly pay and allowances was $341. Of that, $211 was base pay. (The provisions of the new law apply to all personnel on active duty.)

		UNDER THE OLD LAW		UNDER THE NEW LAW
		Wartime	Peacetime	
(a) For the first ten years	Indemnity	92.90	92.90	——
	Compensation	150.00	120.00	138.00
	Social Security	128.00	128.00	156.60
	Total Each Month	$370.90	$340.90	$294.60
(b) Until older child becomes age 18	Indemnity	——	——	——
	Compensation	150.00	120.00	138.00
	Social Security	128.00	128.00	156.60
	Total Each Month	$278.00	$248.00	$294.60
(c) Until younger child becomes age 18	Compensation	121.00	96.80	138.00
	Social Security	105.80	105.80	117.40
	Total Each Month	$226.80	$202.60	$255.40
(d) Until widow reaches age 62	Compensation	87.00	69.60	138.00
	Social Security	——	——	——
	Total Each Month	$ 87.00	$ 69.60	$138.00
(e) After age 62, for life	Compensation	87.00	69.60	138.00
	Social Security	52.90	52.90	58.70
	Total Each Month	$139.90	$122.50	$196.70

The following example is based on a LT, USN with ten years' active service. He is survived by a 28-year old widow and three children, ages 2, 4, and 7. At time of death pay and allowances were $587 per month, of which $437 was basic pay.

		UNDER THE OLD LAW		UNDER THE NEW LAW
		Wartime	Peacetime	
(a) For the first ten years	Indemnity	92.00	92.90	——
	Compensation	179.00	143.20	165.00
	Social Security	128.00	128.00	200.00
	Total Each Month	$399.90	$364.10	$365.00
(b) Until oldest child becomes age 18	Compensation	179.00	143.20	165.00
	Social Security	128.00	128.00	200.00
	Total Each Month	$307.00	$271.20	$365.00
(c) Until next oldest child becomes age 18	Compensation	150.00	120.00	165.00
	Social Security	128.00	128.00	200.00
	Total Each Month	$278.00	$248.00	$365.00
(d) Until youngest child becomes age 18	Compensation	121.00	96.80	165.00
	Social Security	105.80	105.80	162.80
	Total Each Month	$226.80	$202.60	$327.80
(e) Until widow is age 62	Compensation	87.00	69.60	165.00
	Social Security	——	——	——
	Total Each Month	$ 87.00	$ 69.60	$165.00
(f) After age 62	Compensation	87.00	69.60	165.00
	Social Security	52.90	52.90	81.40
	Total Each Month	$139.90	$122.50	$246.40

• ***Options Offered***—The new bill gives survivors of deceased military personnel whose deaths were service-connected and who are now on VA rolls, the option of electing to receive the benefits under old laws or those benefits provided under the new legislation—whichever is to their greatest advantage.

Those survivors who now receive higher benefits than the new law offers may continue to receive the higher benefits until they run out. In such cases the widow may then elect the benefits of P.L. 881 and receive benefits under the new law which are more advantageous.

As an example, a widow now drawing $92.90 indemnity and $69.60 death compensation—a total of $162.50 per month—would receive that amount only for ten years following her husband's death. At that time, under old laws, her total monthly payments would drop to $69.60. By electing at the end of the 10-year period to receive the benefits of the new bill, her monthly compensation would be increased to at least $122 per month but not more than $266 per month, depending upon her husband's basic pay at the time of his death.

If a widow is now receiving free indemnity payments and VA compensation under old laws and the combined total of both benefits is lower than what she would receive under the new law, she may surrender her present indemnity payments ($92.90) and receive the new "dependency and indemnity compensation" offered by the new law. The widows of servicemen whose deaths were service connected and are receiving $10,000 insurance payments under NSLI and USGLI (not "indemnity") do not have to sacrifice such payments in order to elect the benefits of the new act.

It is significant to note that in no case will the survivors of career service personnel lose any money under the new bill. The new law provides substantial increases for the vast majority of survivors now receiving VA death compensation and permits everyone the option of continuing to

receive present benefits or to receive the benefits of the new bill.

Thus, for an example, the widow of a CPO, or of any rank or rate for that matter, now receiving only $69.60 or $87.00 monthly death compensation under old laws, may elect the benefits of the new bill which provide her with at least $122 or more, depending upon the husband's rank or rate, from this source alone.

Here are a few more points of interest provided for in the new bill.

- The new legislation permits the Treasury Department to continue its present authority to levy on compensation for delinquent taxes. (This provides that the government can hold up any money due a person for the payment of federal income taxes, or other indebtedness due the government.)
- In addition, the new law permits military service to be counted for either Social Security old age benefits OR Civil Service retirement, but NOT both.
- One of the law's biggest advantages is that of cutting red tape. The new law repeals all present survivor benefit laws for active duty servicemen and wraps them all into a one-package bill. Hereafter, one application, being prepared jointly by the Secretary of Health, Education and Welfare (who administers Social Security payments) and the Administrator of Veterans' Affairs, will be used for applying for both VA death compensation and Social Security benefits offered by the Servicemen's and Veterans' Survivor Benefit Act.

SecNav Appoints 273 Enlisted Men to Naval Academy

The Secretary of the Navy has appointed 273 enlisted men from the Regular Navy, Naval Reserve, Marine Corps and Marine Corps Reserve to the U. S. Naval Academy as part of the Class of 1960.

All appointees on full-time active duty and 20 members of the Reserve components successfully completed a six-month course at the Naval Preparatory School at Bainbridge, Md.

Appointments by the Secretary of the Navy are based upon relative standing in the Naval Academy scholastic examinations given in March. Of the new midshipmen, 127 were selected from the Regular Navy and Marine Corps and 147 were selected from the Reserve components.

This program of selecting highly qualified EMs for possible appointment to the Naval Academy is a year-to-year deal. If you think you are eligible and can qualify for next year's program, check now with your personnel officer.

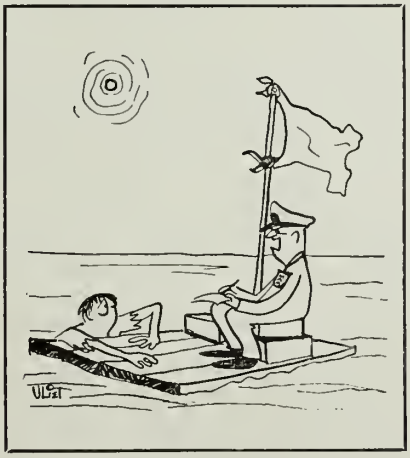
List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature motion pictures available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each movie is followed by the program number. Films in color are indicated by (C) and those in wide-screen processes, by (WS). Distribution began in July.

Movies distributed under the Fleet Motion Picture Plan are leased from the motion picture industry and are distributed free to ships and most overseas activities. These films are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

Prince of Players (564) (C) (WS): Biographical Drama; Richard Burton, Maggie McNamara.

All-Navy Cartoon Contest
G. C. Vliet, PNA3, USNR



"You realize of course that you're out of uniform."

The Prodigal (565) (C): Biblical Drama; Lana Turner, Edmund Purdom.

The Broken Star (566): Adventure; Howard Duff, Lita Baron.

Let's Make Up (567): Musical; Errol Flynn, Anna Neagle.

Jubal (568) (C): Action Drama; Glen Ford, Ernest Borgnine.

Broken Lance (569) (C) (WS): Western Drama; Spencer Tracy, Richard Widmark.

The Magnificent Matador (570) (C): Drama; Anthony Quinn, Maureen O'Hara.

Outside the Law (571): Drama; Ray Danton, Leigh Snowden.

Come Next Spring (572) (C): Drama; Ann Sheridan, Steve Cochran.

Diane (573) (C): Costume Drama; Lana Turner, Pedro Armendariz.

Violent Saturday (574) (C) (WS): Crime Drama; Victor Mature, Sylvia Sydney.

Slightly Scarlet (575) (C): Drama; John Payne, Rhonda Fleming.

Shadow of the Eagle (576): Costume Drama; Richard Greene, Valentina Cortesa.

Blackjack Ketchum, Desperado (577): Western Drama; Howard Duff, Victor Jory.

Patterns (578): Drama; Van Heflin, Everett Sloane.

The Racers (579) (C) (WS): Adventure Drama; Kirk Douglas, Bella Darvi.

Great Day in the Morning (580) (C): Drama; Virginia Mayo, Robert Stack.

Backlash (581) (C): Western Drama; Richard Widmark, Donna Reed.

Crime in the Streets (582): Drama; James Whitmore, Sal Mineo.

The Bold and the Brave (583): Drama; Wendell Corey, Mickey Rooney.

Untamed (584) (C) (WS): Drama; Tyrone Power, Susan Hayward.

The Birds and the Bees (585) (C): Comedy Drama; George Gobel, Mitzi Gaynor.

Quincannon, Frontier Scout (586): Adventure Drama; Tony Martin, Peggie Castle.

Dig That Uranium (587): Comedy; Leo Gorcey, Huntz Hall.

Goodbye My Lady (588): Drama; Walter Brennan, Brandon DeWilde.

Dependent Medicare At Service, Civilian Hospitals Is Okayed

AN IMPROVED PROGRAM of medical care for your dependents has been passed by Congress and signed into law (Public Law 569, 84th Congress). The new law, like the revised survivor's benefit program (see page 46), is designed to improve morale throughout the uniformed services by providing better medical care for the dependents of servicemen.

To accomplish this purpose the new law:

- Recognizes by statute the importance of this traditional benefit and the entitlement of service members and their dependents to medical care, while establishing a uniform level of medical care which may be provided dependents.
- Requires the establishment of a system for providing medical care through civilian medical facilities for those spouses and children of active duty personnel who do not have access to service medical facilities.
- Continues the practice of providing medical care to dependents and retired personnel at service medical facilities, while permitting dependents and retired personnel of all the uniformed services to obtain available medical care at any medical facility of the Army, Navy, Air Force, or Public Health Service.
- Permits retired personnel to obtain dental care at facilities of the uniformed services.
- Provides other benefits, such as hospitalization of Army and Air Force retired enlisted members without charge for subsistence (a benefit already available to retired enlisted Navymen), and hospitalization of dependents in excess of one year in unusual cases.

Navy instructions for putting the new Dependents' Medical Care Act into effect are still being written, therefore all details of the program's operation are not yet settled; however, the law provides that the program become effective in early December. Below you will find a rundown on the major points of the newest benefits available to your dependents if you—and they—meet the requirements set forth by the new law.

Who Is Eligible? Lawful dependents of the following categories of personnel are eligible for benefits of the new program: (1) personnel on active duty for a period of 30 days or more; (2) personnel on the retired list who are eligible for receipt of retired pay, *except* those Reserves retired with pay who have had less than eight years of active duty; and (3) lawful dependents of personnel who died on active duty or who died while on the retired list as indicated above.

The term "lawful dependents" is defined by PL 569 to include:

1. The lawful wife (or the lawful husband if in fact he is dependent upon the member or retired member for support);
2. Unremarried widow and dependent children of deceased members whose death occurred on active duty or while in a retired status (or unremarried widower if in fact dependent for over half of his support because of a mental or physical incapacity);
3. Children under 21, unmarried, including adopted or stepchildren, and children over 21 if incompetent or physically incapacitated, or children under 23 enrolled in a full-time course of study in an institution of higher learning approved by the Secretary of Defense or the Secretary of the Department of Health, Education and Welfare;
4. Parents and parents-in-law, if

WAY BACK WHEN

Hoisting Navy's First American Flag

On 13 Oct 1775 Congress, prodded by the doughty John Adams and spurred by the desperate situation of General Washington, voted to fit out ships "with all possible despatch." This was the legislative birth of the permanent Continental Navy, although individual colonies had vessels before this date. (Rhode Island, for example, authorized two sloops to be fitted out on 15 Jun 1775, and "Washington's Fleet" was already in existence—see ALL HANDS October 1956 p. 59).

The appointment of a Naval Committee on this day in October and the appropriation of $100,000 by Congress on 2 November, paved the way for the nucleus of what would one day become the most powerful naval force in the world.

The colonies, already battling on the land, needed a sizable fleet of warships as quickly as possible to protect them against attacks by the mighty British Royal Navy.

Within two months, the Naval Committee managed to fit out eight vessels. *Alfred* was designated to be the flagship of this new Navy.

The raising of the colors aboard *Alfred*, a salty Indiaman formerly known as the *Black Prince*, is recorded as follows:

"Since Captain Dudley Saltonstall was still absent from Philadelphia, the honor of raising the flag aboard *Alfred* fell to John Paul Jones (second in command). The exact date is not known, but it was probably 3 Dec 1775, when he rowed out to *Alfred* with the new American flag in his hands.

The flag that John Paul Jones hoisted aboard *Alfred* was 'a Union flag with thirteen stripes in the field emblematical of the Thirteen United Colonies.' In the upper left corner, however, it retained the crosses of St. George and St. Andrew as a sort of last, lingering tie to the mother country.

"George Washington is said to have raised a similar flag a few days later in Boston, but the flag hoisted by John Paul Jones was the Mark 1 original with the thirteen red and white stripes—the first American flag.

"The sailors stood at attention, the Marines on the quarterdeck fired a salute, one of *Alfred*'s guns boomed and the red and white stripes fluttered in the wind above the icy water. A crowd massed on shore gave a resounding cheer. The American Navy was launched."

As John Paul Jones later described it: "I hoisted with my own hands the flag of freedom the first time it was displayed, on board *Alfred* in the Delaware."

in fact dependent for over one-half of their support and residing in household of member or retired member.

What Is Available? Under the Dependents' Medical Care Act medical services available to dependents at facilities of the uniformed services will include diagnosis, care for acute medical and surgical conditions, care for contagious diseases, immunizations, maternity and infant care, emergency dental care in the United States and regular dental care outside the continental U. S. In addition, hospitalization not to exceed 12 months or treatments may be provided in special and unusual cases for dependents with nervous or mental disorders or chronic diseases.

Hospitalization will not be available to dependents for domiciliary care, for usual nervous and mental disorders, chronic diseases, or elective medical and surgical treatment.

Other services for which dependents will not be eligible include ambulance service (except in acute emergency); home calls (except in special cases where it is determined to be medically necessary); prosthetic devices, hearing aids, orthopedic footwear, and spectacles, except that outside the U. S. and at remote stations inside the U. S. where such are not commercially available, they may be bought at invoice cost from government, if available.

Payment for hopitalization in service facilities will continue to be a per diem charge of $1.75 per day. It should be noted, however, that the new law allows for setting up uniform minimal charges for outpatient care whenever a special finding determines that such charges are necessary to restrain excessive demands upon service medical facilities.

Wives and children of personnel on active duty may also be allowed to use civilian medical facilities at government expense if service medical facilities are not available or (with certain limitations) in areas where both military and civilian facilities are available. The care which may be provided in civilian medical facilities is generally the same as that available from medical facilities of the uniformed services, except for normal outpatient care. The new law does, however, authorize the Secretary of Defense to allow civilian medical facilities to perform some services frequently considered out-

patient care. For example, this could include surgery to be performed in a physician's office, or X-rays or laboratory tests to be taken in clinics or laboratories other than in hospitals.

Public Law 569 specifically lists the following services which will be available through civilian facilities to the wives and children of active duty personnel:

- Hospitalization in semi-private accommodations up to three hundred and sixty-five days for each admission, including all necessary services and supplies furnished by hospital during inpatient confinement;
- Medical and surgical care incident to a period of hospitalization;
- Complete obstetrical and maternity service, including prenatal and postnatal care;
- Required services of a physician or surgeon prior to and following hospitalization for a bodily injury or for a surgical operation;
- Diagnostic test and procedures, including laboratory and X-ray examinations, accomplished or recommended by a physician incident to hospitalization.

For each admission to a civilian hospital under the Dependents Medical Care Act, the patient will be charged whichever of the following sums is larger: $25; or a sum equal to $1.75 per diem multiplied by number of days hospitalized.

13-Button Trousers Are Here to Stay

By popular demand, "the better fitting—more Navy-looking" 13-button, broadfall-front trouser will replace the zipper pants—now part of the official blue uniform for enlisted men in pay grade E-6 and below.

The decision to restore the 13-button trousers was based upon a recommendation of the Naval Uniform Board as the result of a recent survey conducted throughout the Fleet.

The tight-fitting, broadfront trousers were abandoned in 1948, when the Navy began issuing zippered pants with slash and back pockets. Since 1948, either type has been regulation.

Initial Clothing Allowances Revised for Enlisted Personnel

Fiscal 1957 rates for initial clothing monetary allowances have been revised for enlisted men and women.

For the period 1 Jul 1956 through 30 Sep 1956 enlisted men receive an initial allowance of $163.35; on and after 1 October, however, the allowance will be $171.85.

Enlisted men will continue to be paid their initial clothing allowance in two increments. The first increment remains $4.75, with the balance of the applicable rate becoming the second increment. (The above figures do not apply to personnel who revert to enlisted status from NavCad and OCS training.)

The initial clothing allowance effective for enlisted women during fiscal 1957 is $204.60 when black and white dress pumps are obtained from clothing and small stores stock; $211.20 when only the black pumps are obtained from C&SS; $211.85 when only the white pumps are obtained from C&SS; and $218.45 when neither white nor black dress pumps are obtained from clothing and small stores.

Enlisted women will receive their initial clothing monetary allowance in either two or three increments, with a first increment of $48.40, second increment of $156.20 and a third increment of the applicable amount at present prescribed.

A final change listed in Alnav 28 (12 Jul 1956) affects only enlisted men assigned to duty as members of the U. S. Navy Band or the Naval Academy Band. In lieu of the present $80 supplemental clothing allowance for band uniforms, members of the two bands will receive uniforms as items of organizational issue. The *Navy Comptroller Manual* will be revised to reflect the above changes.

Autumn in Paris? Navy Families Go for This Duty Year 'Round

NOT EVERYONE CAN PULL DUTY in Paris but you can always dream, can't you? To give some substance to your dreams, here's a rundown on living conditions which is specifically slanted to Paris. However, much of the information is also applicable to other parts of France and, in some instances, to adjacent parts of Europe.

Entry of Dependents — Upon receipt in the Bureau of Naval Personnel of the application for transportation for dependents, the necessary forms and authorization for dependents to make application for official passports, when required, will be forwarded to the dependents.

Orders — Be sure you have enough copies of your orders to cover all overseas shipments. You'll need a minimum of 25 copies with you since copies are required for transportation and billeting en route to your duty station.

Housing — Private homes can be obtained from time to time in the suburbs starting at average rentals of $140 per month, plus utilities and heating (utilities run as high as $30 a month). Such houses are rented furnished. Generally speaking, they are not modern according to our standards. Tenants have difficulty keeping the utilities in order and holding servants who prefer to be in town. Transportation is a problem and a car is practically a necessity, even though there is a good rail service to many of the suburbs.

Apartments — In most cases, apartments are rented furnished. In one case, it might mean four or five rooms containing only the bare essentials, and in another it might easily describe the interior of an antique shop, with pictures, bric-a-brac and objects d'art. Prices for furnished family apartments are from $150 a month and up with utilities extra. Many apartments are available only for short periods from three to six months. Renting on a monthly basis is the most convenient arrangement, of course, though in many instances landlords demand payments from three to six months in advance.

If the apartment is obtained through an agent, there are sometimes fees ranging from 50% of one months's rent to 10% of the annual rent. Most apartments have no garage facilities, and tenants are, therefore, obliged either to park outdoors or rent a garage at a cost of approximately 3,000 to 5,000 francs a month (350 francs equal $1.00).

Heating—When purchased through the Embassy, coal averages $40-$48 a ton for anthracite. Gas heat costs slightly less than coal. Central heating, when provided, is normally turned on between 15 October and 1 November and, regardless of the weather, is turned off on or about 15 April. Bath water is heated by a central hot water system or individual units in bathrooms. In houses, the use of from six to ten tons of coal during the fall and winter months is common.

Hotels — Generally, hotel rates in Paris vary according to the season, with the higher summer rates in effect between 15 March and 15 November. Most hotels in Paris provide only hotel service, and range in price from about 1,500 francs a day (350 francs = $1.00) to just about any price you are willing and able to pay.

Servants — After permanent quarters are obtained, it is usually possible to locate servants. Maids are paid about $35 monthly when living in or about 45 cents by the hour. Nursemaids are paid from $40 to $50 depending on their experience, languages, etc. Most people find a maid much more of a necessity here than in the U. S. because of inconvenient kitchens, old homes, involved shopping problem, etc.

Household Effects—These, if shipped concurrently, will reach Paris about two to three months after your arrival and can be stored in Paris at U. S. Government expense for a period up to six months.

Don't bring a stove. You may find a place with a two-burner gas plate or a place with gas, electric, wood, and coal stoves all packed into one kitchen. Wait until you see where you are going to live, and then plan to supplement your facilities with items which best fit in with that particular arrangement.

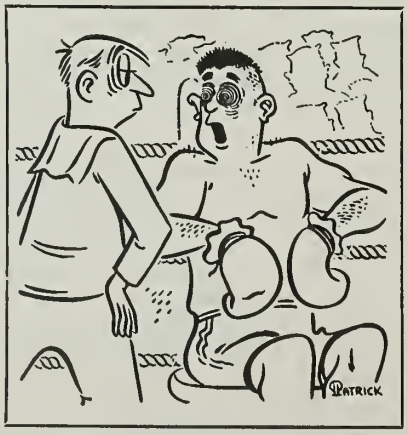
If you have any small heaters that do not draw too much current, bring them. Otherwise, you can get good ones, both electric and kerosene, at the PX and in the local market. French houses and apartments are usually not heated to the degree to which Americans are accustomed.

Resale of household goods, before departure from France, is subject to French customs tariff. An inventory of household goods by serial number will be made for the French customs when you enter France and upon departure you must account for all items sold in that country.

Electrical Appliances: Sixty cycle household appliances will function satisfactorily on the local fifty cycle current with the exception of phonograph turntables, wire recorders, electric automatic coffee pots, and electric clocks. Special adapters for some of these appliances can be bought in the States for about $1.00 and are not available on the local market. It is well to remember that the efficiency of a 60 cycle appliance is somewhat reduced when operating on 50 cycles. It is recommended that all motor-driven equipment such as refrigerators, washing machines, etc., have a 50-60 cycle motor. Automatic washing machines do not work well, but non-automatic machines are very useful. Bring your vacuum cleaner

QUIZ AWEIGH ANSWERS
QUIZ AWEIGH IS ON PAGE 9

1. (b) USS *Mississippi*.
2. (a) 1917.
3. (c) X-1.
4. (b) One officer and four men.
5. (a) USS *Glacier*.
6. (b) Ram through the obstruction by power from her engines.



"Hit him? I can't even see him!"

too (as well as a carpet sweeper).

Blankets: Bring your own, but new ones are obtainable through PX or mail order.

China and Cooking Utensils: Bring your own. Available in all price ranges at local department stores. Limited patterns of china are available at the PX. Table silver is rarely furnished so it's suggested you bring that also. Bring your own coffee pots, or new ones can be purchased at the PX. Spare parts and replacements for specific American models are available through mail order only. Most automatic electric pots work unsatisfactorily.

Furniture: Store most of it. Unfurnished apartments in Paris are rare. However, end tables and small chests of drawers are very useful as there are never enough in French furnished apartments or houses. Your favorite easy chair and occasional chairs will be assets. French houses and apartments usually have plenty of pictures and mirrors, but seldom a full-length mirror.

Lights: American light bulbs will not fit French sockets, which are of the bayonet type. Bring only light bulbs that will be used in your own American lamps. Replacements are available in the PX. Fluorescent tubes are available on the French market, but in general, their lengths are different from American tubes.

Electrical Kitchen Equipment: Bring what you have. Toasters, and mixers of French manufacture are available on the French market at very high prices; all are available at the PX.

Phonographs: Bring your own, but don't forget to check your distributor for adapting it to run on 50 cycles. Infrequent and limited supply at the PX, but they can be obtained through mail order. Bring your records.

Radio: Bring it. Portable and table models sometimes available at the PX. Shortwave is necessary to pick up U.S. broadcasts. *Television:* American sets will not operate in France without costly modifications. Practically no Americans in Paris have bothered with TV.

Refrigerators and Deep Freezers: Bring a refrigerator with a large freezing compartment. Deep freezers can be used, but are not essential. However, if you don't already possess these items, you may prefer to buy your refrigerator over there at the PX, after determining your requirements.

Transformers (electrical): Don't buy until you determine your needs. You can buy them in the PX and on French market. They are necessary for some appliances.

Clothing – Generally you will wear the same type of clothing in Paris that you would wear in any metropolitan American city. Warmer clothing is required in the winter because of fuel cost and lack of adequate central heating. The darker shades of clothing are predominant.

Dry cleaning, pressing and dyeing facilities are available although both dry cleaning and laundry are not completely satisfactory and rather expensive.

Women's Clothing: Bring all your clothes, particularly for cold weather wear. There is no middle ground for shopping in Paris as is found in many department stores and shops in the States. Clothing for adults is generally custom made although the ready-to-wear clothing is becoming less scarce and not so highly priced as formerly. An average simple ready-made wool dress would cost about $50, and having the same dress made, with material from the Post Exchange, would cost about $35. A ready-made suit would cost about $70 and up.

A heavy wool coat (or a three-quarter or full-length fur coat) is a necessity. A raincoat is a must and you will find the medium-to-heavy weight the most practical. Bring your bathing suits, too.

Hats, blouses and purses, available at French specialty shops, are beautiful but frequently expensive. PX does have hats, blouses, suits, dresses, purses, stockings, gloves and underwear. Sizes, quality and style are, of course, limited.

Shoes: Bring all the shoes you will need during your tour over here or make arrangements to send to the States for them, particularly if you have a narrow foot. French shoes are expensive and generally do not fit American feet.

Children's Clothing: There is a fairly good supply of clothes for teen-age boys and girls. If your children belong to the Scouts bring all items of their uniforms. Bring a good supply of baby and younger children's clothing and make arrangements to send to your favorite store for additional needs. Limited amounts available at the PX. Children's ready-made clothing in French market is generally higher but very attractive.

Men's Clothing: Suits or sport jackets, with shirt and tie are worn at the office. Civilian shirts, ties, socks, sweaters, gloves, slacks and sport jackets, plus suits and overcoats are stocked in PX. There is also a uniform shop which stocks all necessary items. Military personnel wear civilian clothes except when visiting French Army installations, U. S. Army installations in Germany, or on certain other special occasions.

Food – The commissaries in France are well-stocked with standard canned goods, baby food, coffee, sugar, flour, freshly baked bread, fresh pasteurized milk, cream and

SONGS OF THE SEA

The Fisherman's Daughter

I've been caught in a net by a dear little pet,
And her eyes are as blue as the rolling sea,
She's a fisherman's daughter, she lives o'er the water,
She's going to be married next Sunday to me.
She's as rare as the salmon, there's really no gammon
As sweet as shrimps newly served up for tea,
My soul she has caught and a place I have bought,
Where a ray of bright sunshine forever will be.

—USN

cottage cheese, butter, and eggs.

The commissaries also have cigarettes, tobacco, toothpaste, a few cosmetics and toilet articles. Fresh frozen fruits and vegetables, meat and fish are also sold.

Local stores stock almost all food items which could be obtained in the States at about the same prices. There are, however, no supermarkets.

Restaurants: Paris is world-renowned for its superlative food and abounds in restaurants ranging from the quaint to the elegant. Most of the French eating places uphold the reputation for serving excellent food and wines.

Automobiles — Don't make a special effort to bring a new car with you, but do make sure your car is in good condition before leaving the States. You will find that repairs are very expensive and time-consuming here, and the required parts are sometimes difficult to locate. European cars are available in all sizes, but the smaller ones offer economy of operation and upkeep together with a comparatively low initial cost.

Registration plates are necessary and can be obtained on a special basis, valid during the period you are in France. Bring your Stateside title and registration with you. You will need European-type liability insurance, which will cost more than U. S.-type insurance (about double), before you are permitted to drive your car from the port where it arrives.

Gasoline can be obtained, provided minimum insurance requirements are met, by registering the vehicle with the Provost Marshal, Seine Area Command, Paris. The price is approximately 28 cents per gallon.

Transportation in Paris — Taxis are reasonable and plentiful (except during rush hours) during the day. A tip of approximately 15 per cent should be added to the meter reading. At night, taxi rates double.

Metro (subway) and bus services in Paris are excellent and very reasonable, but extremely crowded during rush hours. The metro runs until 0030 and buses operate until 2100.

Education — The Army operates a dependents' school in Paris, grades 1 through 12. New school buildings were opened in September 1954. There is no tuition charge to children of service personnel. Bus service is provided within a 19-mile radius, without charge. The vast majority of children attend this school.

There is a private school, the American Community School, operating under the supervision of a board of prominent Americans and including all grades through high school. There is also the Denny School, which is English, open to any English-speaking pupils, either as day or boarding students.

It is possible for children to attend French public schools in the community in which they live. There is no tuition fee. Tuition fees are charged in most French private schools.

Paris is famous for its universities and colleges, and excellent courses in most subjects are given though almost always at an advanced level, since basic instruction in any subject is left to the secondary schools.

Medical and Dental Facilities — The U. S. Army Hospital in Paris is at present providing medical service at the hospital for all U. S. military personnel and their dependents.

The Army Dental Clinic is at the same location as the U. S. Army Hospital. Examinations for military personnel and their dependents are given daily, except Saturdays and Sundays, at both the hospital and dental clinic.

Civilian dental care is above average, and there is a considerable number of American-trained French dentists. Their fees, however, are high.

Religion — All general denominations are represented and at least one weekly service in English is conducted.

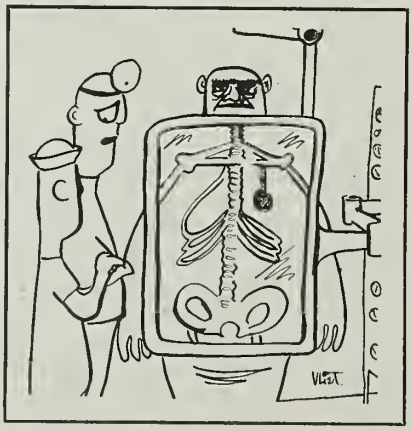
Recreation — There are clubs in Paris to suit every purpose, and social and outdoor life can be enjoyed about the same as in any large city in the States. Recreation facilities for adults and children are adequate. Although there are no lakes of any size nearby, there are both indoor and outdoor swimming pools for summer and winter recreation. Various sporting clubs in the suburbs offer tennis and golf. Horseback riding may be enjoyed in the Bois de Boulogne, a famous park located between the suburbs of Neuilly and Auteuil. All sports equipment may be purchased in Paris, but those who have such equipment as tennis rackets, golf clubs, ice skates, etc., should bring them. Sports attire may be purchased, although it is more expensive than in the States.

Paris has a world-renowned opera, innumerable theaters where excellent plays and concerts may be heard, nearly all in the French language, and moving picture houses showing American and European films. There are enough art museums, galleries, restaurants and night clubs to keep one completely occupied for the entire tour of duty.

Short trips may be made to the Atlantic or English Channel coasts, about 125 miles from Paris and to such resorts as Deauville and La Baule, 280 miles southwest of Paris. Other trips may be made through the Chateau country of the Loire Valley, to the Riviera or French Alps, or to Belgium, Spain, Germany and other countries in Western Europe. There is excellent rail transportation and many trips can be made over the week end.

Bicycles are a widely used form of transportation and recreation in Paris, and are very useful for children and grownups alike, especially in the suburbs. If your child owns one, bring it along, but don't buy one to bring. The children usually prefer the light-weight European models which are available here. A good idea is to bring along saddle bags for books. In France, these are about double the U. S. price.

All-Navy Cartoon Contest
G. C. Vliet, PNA3, USNR



"He's a bos'n's mate I presume?"

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 22—Announced approval by the Secretary of the Navy of the reports of promotion boards which recommended officers of the Navy and Naval Reserve to the grades of captain, commander, lieutenant commander and lieutenant in the Medical Corps and Dental Corps.

No. 23—Concerned unfilled requisitions at supply activities on 30 June.

No. 24—Announced approval by the Secretary of the Navy of the report of a selection board which recommended Regular Navy warrant officers for promotion to the grade of Chief Warrant Officer.

No. 25—Authorized the incurring of certain obligations pending signing of the Department of Defense Appropriation Bill for fiscal year 1957.

No. 26—Quoted letter from the Secretary of the Navy to president of line selection board considering promotion of captains to temporary rank of rear admiral.

No. 27—Announced approval of Department of Defense Appropriation Act of 1957.

No. 28 — Announced certain changes in initial clothing monetary allowances for enlisted personnel.

No. 29—Announced the convening of line selection boards to consider men on the active list of the Regular Navy and Naval Reserve (except TARs) to the grades of captain and commander.

No. 30—Announced approval by the President of the report of a selection board which recommended Regular Navy line officers for temporary promotion to grade of RADM.

No. 31—Announced approval by the President of the report of a selection board which recommended officers for temporary promotion to the grade of major general in the Regular Marine Corps.

No. 32—Emphasized that Public Law 538 (84th Congress) which authorized shipment of privately owned vehicles in commercial U. S. vessels does not increase the number of Navy facilities intended to handle such vehicles.

No. 33—Concerned the lump sum readjustment payment for members of the Naval and Marine Corps Reserve involuntarily released from active duty.

Instructions

No. 1020.6C—Promulgates clothing allowances for Naval Aviation Cadets and Naval Aviation Officer Candidates.

No. 1050—Concerned sick leave for active duty Navy and Naval Reserve patients in Army and Air Force hospitals.

No. 1520.15C—Promulgates the eligibility requirements and procedures for officers to request postgraduate education for courses of instruction convening in fiscal year 1958.

No. 1520.49—Authorizes the issuance of diplomas or certificates of satisfactory completion of courses of instruction to Navy officer faculty members.

No. 1533.40—Establishes a procedure for assigning identification numbers to students enrolled in Regular and Contract NROTC programs.

No. 1550.25—Calls attention to action necessary to down-grade the publication *Naval Weapons Supplement* to Unclassified.

No. 1626.10A—Restates amplifying instructions relative to the administration of offenses involving unauthorized absence of enlisted personnel.

No. 3740.1—Sets forth the procedure regarding restoration of authority to pilot naval aircraft to former naval aviators.

Notices

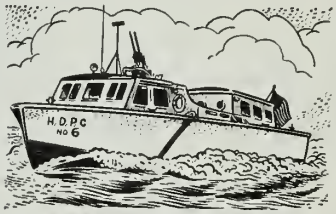
No. 1306 (13 June)—Announced change No. 2 to BuPers Inst. 1306.22B, which is concerned with the assignment of enlisted personnel to duty as instructors.

No. 1120 (14 June)—Announced changes in a number of Instructions

HERE'S YOUR NAVY

Atomic subs, guided missile cruisers and giant aircraft carriers take the limelight but today's Navy still has, and always will have, a place for its nameless and even sometimes numberless vast fleet of small boats.

Typical are "The Guardians of Yokosuka Harbor"—12 harbor defense



patrol boats—responsible for the security of all ships present at the U.S. Fleet Activities, Yokosuka, Japan.

Although the threat of sabotage is slight, these 45-footers maintain around-the-clock patrol and are always on guard against such possibilities. In addition to keeping un-

authorized personnel and all types of boats outside the waters under Navy's jurisdiction, they also warn small craft operating in the area of expected rough water and high winds in advance of the small craft warning flag being hoisted.

Manned by a coxswain, engineer, line handler and Japanese interpreter, these "guardians" . . . equipped with a two-way radio, twin .50 caliber

machine gun, first aid kit, fire extinguisher and life-saving gear . . . are prepared for any emergency they may encounter.

The guardian role of these patrol boats is now two-fold. They are being utilized for training personnel of the Japanese Maritime Self-Defense Force in the science of small-boat-handling, engineering, gunnery and anti-submarine warfare.

in the 1120 series in order to require the submission of the Enlisted Evaluation Report (NavPers 1339) instead of the present Chief and Petty Officer First Class Evaluation Sheet (NavPers 1339).

No. 1085 (19 June)—Furnished information on the availablity and effective date of NavPers 760 for certain ratings.

No. 1611 (19 June)—Announced Change No. 1 to BuPers Inst. 1611.6, which is concerned with instructions and procedures regarding Naval Aviator Disposition Boards.

No. 1743 (20 June)—Concerned the observance of Jewish High Holy Days to be celebrated in September.

No. 1306 (20 June)—Requested verification of the instructors data furnished by Report BuPers 1306-3 and advises of the forthcoming change in the preparation of Instructor Reports.

No. 1710 (21 June)—Announced the 1956 National Rifle and Pistol Championships to be held at Camp Perry, Ohio, 14 Aug—8 Sep 1956.

No. 1430 (22 June)—Provided information concerning submission of certified copies of service record pages for change of status to CPO, permanent appointment.

No. 5321 (26 June)—Announced Change No. 1 to BuPers Inst. 5321.1A, which is concerned with the preparation and submission of the Roster of Officers (Form NavPers 353).

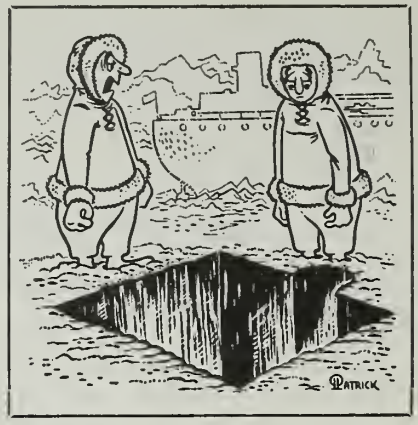
No. 1410 (3 July)—Provided information concerning interim qualifications required for Fire Control Technician L (Integrated Systems) FTL3.

Navy Reports Results on Polio Vaccine in Epidemic

The Navy's Surgeon General has announced that it is relatively safe to administer Salk vaccine to both children and adults during an outbreak of poliomyelitis.

This conclusion was reached after an analysis was made on a "crash" program conducted last fall. At that time 80 per cent of the Hawaii-based married naval personnel and their dependents were given the vaccine during an epidemic.

Approximately 21,000 Navymen and dependent women and children were given the Salk vaccine during the emergency immunization program. Because of the short duration of the epidemic—which ended about 30 days after the Navy began the vaccinations—it was not possible to obtain conclusive proof as to the effectiveness of the vaccine in prevention of poliomyelitis, although the results were strongly suggestive of this.



"I told him not to use his electric blanket!"

There was no evidence that the vaccine had caused paralysis to occur among those who possibly were infected with the virus at the time they received the immunization.

A careful analysis was made to learn if giving the vaccine under the conditions of a rapid spread of poliomyelitis among these families had any harmful effects. No evidence of this could be found. An equal percentage of vaccinated and unvaccinated cases developed paralysis during the early days of the program, but the vaccinated cases seemed less severe.

Administering the vaccine did much to boost morale of the Navy families based in Hawaii as most of them were familiar with previous outbreaks on the Island.

Radioman 'B' School Graduates First Class at Bainbridge

The Navy's first class of the new Radioman "B" School at Bainbridge, Md., has been graduated and Marvin H. Suttman, RMC, USN, has the distinction of being its honorman.

Suttman, who was recently selected for promotion to warrant officer (W-1), is currently preparing for his new officer duties and added responsibilities by attending the Electronics Maintenance School at Great Lakes, Ill.

"The Navy's Radioman 'B' School," according to its OIC LCDR C. E. Preble, USN, "in spite of its small beginning, will make the Navy radiomen of today and tomorrow better and more versatile performers."

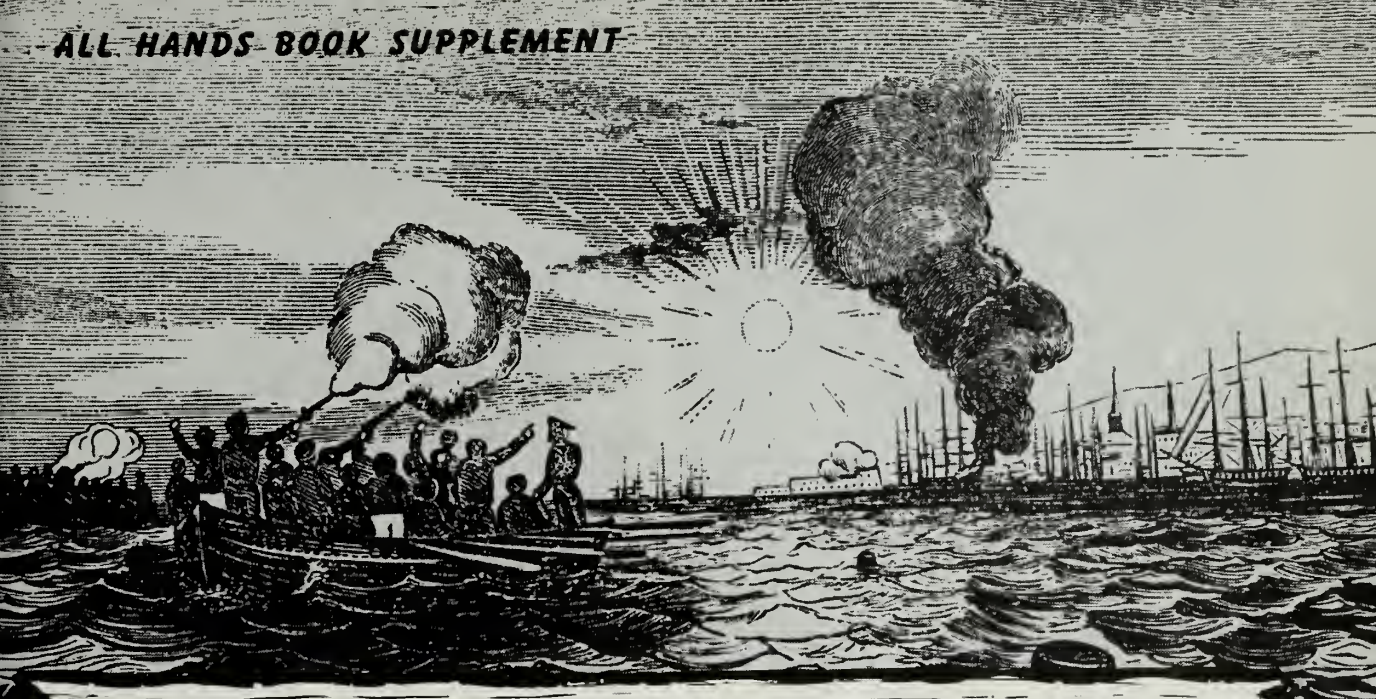
During its 30-week term, the course is divided into two phases. The first 16 weeks are devoted to giving the radioman a thorough knowledge of basic electricity and electronics, with the remainder of the course being devoted to practical experience. The second phase includes "trouble shooting" and repair of representative types of communications equipment.

Training covers transmitters, receivers, UHF equipment, special circuits, keyers—converters and associated teletype and facsimile equipment, and operation and maintenance of communications systems.

The communications phase of the school covers combined communications systems; task force organization communications, security, message preparation, frequency allocation, distress communications, movement report systems, weather reporting and practical work in a communications system mock-up room.

Sounds interesting, and by now you must be wondering how you can attend this school. To qualify, you must be an RM2 or higher; be a graduate of Class A Radioman School or have equivalent training, be in your second or subsequent enlistment, and have 24 months of obligated service when you enter.

If you meet these requirements and are interested in attending the Class B Radioman School, you should submit a request to your Fleet commander. If you're on shore duty, then you should submit your request via normal channels, to the Chief of Naval Personnel (Attn. Pers B2133).



"I Sailed With John Paul Jones"

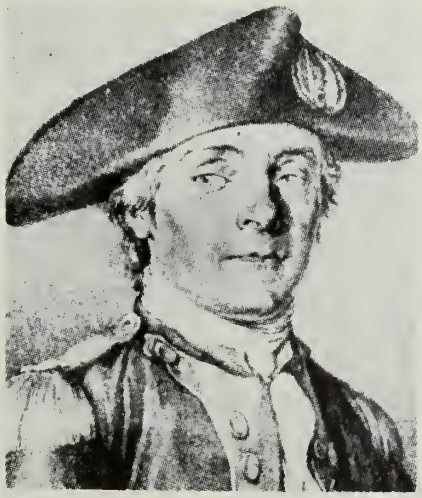
DIARY OF EZRA GREEN (1746-1847)
Serving on board the Continental Ship-of-War *Ranger*, under command of Captain John Paul Jones, from 1 November 1777 to 27 September 1778

Captain John Paul Jones was an early exponent of the strategy of taking the offensive against enemy seaports and ships. In Ranger, *Jones had a ship which (although it was not the man-o'-war that he had hoped for) enabled him to put some of his ideas into action.*

Ranger *had been built at Langdon's Island, Portsmouth Harbor, in 1777. John Paul Jones received command of the ship on 18 June that same year. Fitting the frigate and preparing for her mission was no easy task.*

For example, the following extracts from John Paul Jones' letter to the Marine Committee, dated 29 Oct 1777, two days before sailing, give a lively idea of the difficulties he had to contend with, and the proverty in resources available to the youthful American Navy.

"With all my industry I could not get a single suit of sails completed until the 20th current. Since that time winds and weather have laid me under the necessity of continuing in port. At this time it blows a very heavy gale from the northeast. This ship with difficulty rides it out, with yards and topmasts struck and whole cables ahead. When it clears up I expect the wind from the northwest, and shall not fail to embrace it, although I have not now a spare sail nor materials to make one. Some of these I have made of hissing. I never before had such disagreeable service to perform, as that which I have now accomplished and of which another will claim me credit as well as the profit. However, in doing my utmost, I am sensible that I have done no more than my duty."



John Paul Jones

Thus imperfectly equipped, having a very good crew, but "only thirty gallons of rum," as Jones laments, for them to drink on the passage, Ranger *sailed from Portsmouth on 1 Nov 1777; the date that this diary begins.*

What was the mission assigned to the man-o'-wars-man? The Commissioners wrote to John Paul Jones: "After equipping the Ranger *in the best manner for the cruise you propose, [proceed] with her in the manner you shall judge best for distressing the enemies of the United States, by sea or otherwise, consistent with laws of war and the terms of your commission."*

How well Captain Jones succeeded in his assignment to "distress the enemies" is indicated by the man who sailed with him and whose diary is quoted here, Ezra Green, ship's physician.

"A few words may be necessary in respect to the Diary of my father, Dr. Ezra Green, which I am quite

"I Sailed With John Paul Jones"

sure he never suspected would appear in print before the public eye." This was a prefatory note to the diary written by Walter C. Green, son of the man who sailed with John Paul Jones.

"When quite a lad I was, out of curiosity, rummaging over an upper chamber closet, where in promiscuous order were odd volumes—school books, speeches, sermons, etc — when this unpretentious pamphlet turned up in marbled paper-cover. All the particulars of it I had heard my father frequently recount, and hence did not at that early age appreciate its value. . . . This Diary [later] came under the eye of Commodore George Henry Preble, who requested my permission for its publication in the Historical and Genealogical Register, together with such facts as he might gather of my father's public life during five years' service as surgeon in the Army and Navy during the American Revolution. To this request I gave my willing assent." (Boston, 16 Nov 1874)

PORTSMOUTH ROAD, Nov. 1st, 1777, Saturday.—Between the hours of 8 & 9 this morning weigh'd anchor and proceeded to Sea with a moderate breeze, before night lost sight of the American shore.

SUNDAY, Nov. 2nd.—A very fine morning and a favorable wind, all well on board—except some few who are a little Seasick.

FRIDAY, Nov. 7th.—A strong gale at Northwest which carrys us 10 Knots.

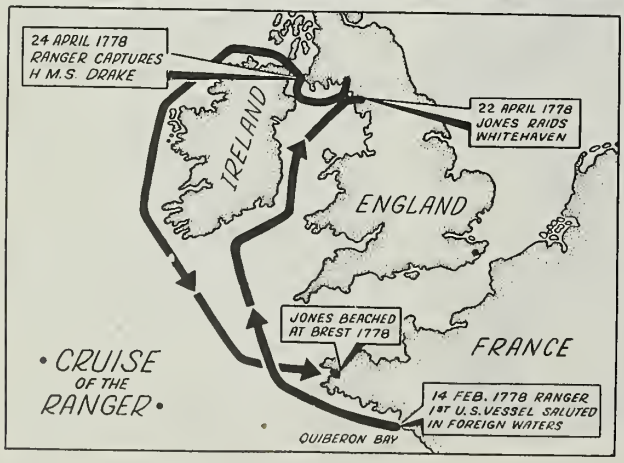
THURSDAY, Nov. 13th.—About seven this morning saw a sail on our lee Bow distant about 2 Leagues, gave chase and spoke her about 12 O'clock, a Brig From Carolina bound for Bordeaux with several Tory Passengers on Board, among whom were Hartley the organist & his wife.

FRIDAY, Nov. 14th.—This Morning at 5 o'clock came up a severe Thunder Storm from the Southwest.

SATURDAY, 15th.—Last evening came on a gale of wind which increased till about 3 this morning when it began to abate, in the height of the gale a sail was seen under our lee Quartet, hove to till she came up, a Schooner from St. Peters bound to Bordeaux.

SUNDAY, 16th.—A fresh Breeze, and high Sea from the late gale. About 10 o'clock our tiller Rope broke by which we were in Danger of the Ship's broaching to.

CHART shows *Ranger's* path which began at Quiberon Bay, France, ended with John Paul Jones' cruise to Brest.



WEDNESDAY, 19th.—About six this morning saw a Sail under our lee Quarter, gave Chase or rather bore away till we came within about a mile of Her. Found Her to be a large ship standing our course, clewed up our Courses and hawl'd Our wind—got ready for action she standing on her course close to the wind, wore ship when it was too late, continued the chase till night and lost her.

SATURDAY, Nov. 22nd.—At nine o'clock this morning saw a Sail on our weather Beam—little wind; One of Our People fell from the Chains but was saved by a Rope's End Handed Him.

SUNDAY, Nov. 23rd.—Early in the morning saw a Sail supposed to be the same we saw yesterday, came up with and made a Prize of—about 8 o'clock—a Brig laden with fruit and wine from Malaga bound to Yarmouth, Riches Comr.—She is called the *Mary*—there are no less than six sail in sight at this time.

WEDNESDAY, 26th.—Early in the morning gave chase to a Brig under our lee Bow, but were obliged to give over Chase on seeing a very large Ship to windward with several other Sail in Company who appeared to be standing athwart us, about 2 she hove to with a Fleet of 13 Sail of Ships & Brigs at 2 Leagues Distance, clewed up Our Courses & stopp'd our Ship's way expecting every minute when she would come down upon us; about 4 she stood on her Course, we made sail close to the wind with a design to cut off a Brig which could not keep up with the Convoy, lost her in the night.

SATURDAY, 29th.—A very heavy gale, hove to at night in the Bay of Biscay 60 Leagues distant from land.

SUNDAY, 30th.—Fine weather and a strong wind in the night hove to and sounded in 80 Fathom water.

TUESDAY, Dec. 2nd.—Ran in for the Land with a fine moderate Breeze, narrowly escap'd running on a Sand through want of a Pilot and arrived all in good Spirits at Peanbeauf on the River Loire and came to anchor in the evening.

FRIDAY, Dec. 5th.—the Prize Brig *Mary* arrived here safe—Went to Nantes with Capt. Simpson arriv'd at 9 in the Evening this is a very considerable City distant ten leagues from Penbeauf am told there are 12 Parishes in Nantes in one of which are 30,000 Souls.

SATURDAY, Dec. 6th.—Went to the Tragedy but it was to me in an unknown Tongue, was not much pleased or entertained, how ever the Musick was good.

SUNDAY, Dec. 7th.—Returned to Peanbeauf and on board the *Ranger*.

FRIDAY, 13 Feb.—Set sail for Quiberon Bay M. Williams & Brothers on board, in company with us Brig *Independence*, anchored in the Bay about six in the Evening 4 Ships of the line besides Frigates in the Bay.

SATURDAY, 14 Feb.—Very Squally weather came to Sail 4 o'clock P.M. Saluted the French Admiral & rec'd nine guns in return. This is the first salute ever pay'd the American flagg. [1778]

SUNDAY, 15th Feb'y.—Brig *Independence* saluted the French Flagg which was returned.

WEDNESDAY, 25th Feb'y.—Fleet got underway and left us at anchor Contrary to Expectations, about 12 o'clock it being very windy we came to sail, ran out of the Bay without a Pilot, attempted to the Northward of Belisle, but did not succeed, put back hoping to run into the Bay again, but could not weather the Rocks. In the

From *Diary of Dr. Ezra Green, 1746-1847*. Reprinted, with additions, from the *Historical and Genealogical Register* for January and April 1875. Printed privately by David Clapp & Son, Printers, Boston, 1875.

midst of our Trouble having narrowly escap'd over setting the Ship were alarm'd with the cry of Fire—after all our endeavors to procure a Pilot were in vain, & night coming on, bore away and ran out to the Leeward of the Island, very squally still.

THURSDAY, 26.—Arrived in Quiberon Bay again this Evening after a short but very tedious & unprofitable Cruise.

TUESDAY, March 3rd.—Weigh'd anchor and came to Sail in fine weather & smooth Water, sail'd along the Coast about 25 Leagues and came to anchor in a small Bay near a small village called Benodett, had a curious adventure with a French Pilot who came on Board to pilot and Ship but would not be compell'd to take charge of her.

THURSDAY, March 5th.—Went with Joseph Ratcliff to Pontlably and procured good lodgings for him, supposing the Eruption (which came out last night) to be small Pox—we were treated with great respect as we were Americans, were waited on near half a mile to the Boat and on parting gave them 3 cheers which was answered with "vive Le Congres."

AT BREST, Tuesday, March 10th.—Last night eight of our people took the Cutter and went on shore and ran off leaving the Boat on the Rocks.

SUNDAY, 15th.—I had the pleasure of entertaining the Commisaries Lady & two Sisters on Board the *Ranger*.

WEDNESDAY, 18th.—Last night died after a lingering illness for more than three weeks Willm. Reading. His remains were decently interr'd about 11 o'clock A.M.—P.M. the Ladies came to pay Capt. Jones a visit as he was absent when they pay'd us the first Visit.

MONDAY, 23rd March.—Got under way and ran up to Brest; saluted the Admiral, rec'd the news of Lt. Stormont's Having left Paris on receiving a copy of the Treaty with America.

THURSDAY, 2nd April.—Got up anchor, pay'd the French Flag another Salute rec'd 11 for 13—One of our Seamen narrowly escap'd drowning; when the Ship was coming to sail, was turned off from the Sprit sail Yard. The Ship went over Him, but He was luckily taken up by the Man who was in the Cutter which was vear'd astern. Arriv'd at Camaritt about 5 O'clock P.M.

FRIDAY, 3rd April.—Our Ship being laid on Shore for cleaning I went with our Pilot & Lt Wallingsford to take a view of the New Fort which is building on an Eminence at the distance of three miles from Camaritt.

SUNDAY, 5 April.—Attempted to get out to sea with the *Fortuna* of 36 guns but were oblig'd to return to Brest.

WEDNESDAY, 8th.—Made a second attempt to get out & fail'd.

On the 10th of April Captain John Paul Jones sailed out of Brest Harbor headed for the British coast. In a period of less than a month he was to make a commando attack on British soil to set fire to shipping at Whitehaven. Later he was to land on St. Mary's Isle with the intent of capturing a friend of the King of England to hold as hostage; and during the rest of the time he was capturing or sinking British shipping, including the mighty Drake. *The brief, almost off-hand, remarks in Ezra Green's diary tell part of the story.*

FRIDAY, 10th.—About 5 O'clock P.M. came to Sail in Company with the Frigate *Fortuna*—were detained by the Cutter which was sent after Santo Camaritt.

SATURDAY, 12th.—Fine weather but no Convoy to be seen. About 10 in the morning saw a sail to windward which prov'd, quite contrary to our fears, to be the *Fortuna*—we were all ready for action when she came alongside of us.

MONDAY, 14th.—Our Convoy left us sooner than Capt. Jones Expected which He resented but could not prevent.

TUESDAY, 15th April.—Early in the morning saw a Brig under our Lee Bow, about 8 O'clock spoke her: from Ostend to Galway laden with Flaxseed. Took the People their Baggage & c. on board, scuttled, and left Her. [*This ship was captured and sunk in the area between Scilly and Cape Clear.*]

WEDNESDAY, 16th.—Made some part of Ireland in the morning suppos'd to be the high land of Dungarvin.

THURSDAY, 17th.—Saw a ship in the afternoon under our Lee bow, at Sun's setting spoke Her—a Ship of about 350 Tons from London for Dublin laden with Hemp, Iron, Porter & c. Ordered her to Brest. [*This ship was* Lord Chatham, *and after her capture was manned by men from Captain Jones' crew to sail her to the French port.*]

SATURDAY, 19th.—Made a warm attempt to take a Cutter mounting 8 Guns. She slipped through Our Fingers. Had the Captain have permitted the Marines to fire on them when they first came under our Lee Quarter might have taken Her with great Ease.

SUNDAY, 20th.—In the morning near the Isle of Man sunk a Schooner laden with the Barley & Oats about 60 tons burthen from some part of Scotland. In Evening sunk a Sloop in ballast from Ireland.

MONDAY, 21st.—Bore down for Belfast Lock, took a fishing Boat with 4 men in sight of a Ship at anchor. They informed us that she was a Man of War of 20 guns [*Drake*]; we made sail and stood off about an Hour, when the Capt ordered the ship to be put about in order to go in and cut her out, but the wind blowing fresh and the people unwilling to undertake it we stood off and on till midnight when the people consenting and the wind having lulled a little we stood into the River but it being somewhat Dark did not drop our Anchor so as to lay her along side, therefore were oblig'd to cut and run out, which we were very lucky in effecting.

RANGER AND DRAKE exchange volleys. *Drake's* capture added greatly to growing reputation of John Paul Jones.

POWER of new US Navy was realized when Ranger harried the coast of England and took many prizes.

John Paul Jones, in his official report later on the meeting with the British man-of-war Drake, *stated: "I determined to attack her in the night. My plan was to overlay her cable, and to fall upon her bow, so as to have all her decks open and exposed to our musquetry, & c. At the same time, it was my intention to have secured the enemy by grapplings, so that, had they cut their cables, they would not thereby have attained an advantage." However, his plans were delayed by the weather.*

TUESDAY, 22nd.—Stood off and on all Day with a design to make another Trial if the wind lull'd at night. There being no signs of more moderate weather, wore ship and stood back towards Galway Mull—Our people very much fatigued.

Not a man to waste precious time and ready to take the advantage of every opportunity, Captain Jones postponed his encounter with Drake *for another equally daring venture—a landing ashore and an attack on shipping.*

WEDNESDAY, 23rd.—Weather somewhat more moderate & Our people a little recruited, Our enterprising Capt. with about 30 men went on shore about 11 P.M. with a Design to fire the Town of Whitehaven.

This is from John Paul Jones' report: "When we reached the outer pier (of Whitehead) the day began to dawn. I would not, however, abandon my enterprise, but despatched one boat . . . with the necessary combustibles to set fire to the shipping on the north side of the harbour.

"I went with the other party to attempt the south side.

"I was successful in scaling the walls and spiking up all the cannon on the first fort. Finding the sentinels shut up in the guard-house, they were secured without being hurt.

"Having fixed sentinels, I now took with me one man only, (Mr. Green) and spiked up all the cannon on the southern fort, distant from the other a quarter of a mile."

THURSDAY, 24th.—After watching the night and all the morning till broad day light in expectation of seeing the smoke of the Town and Shipping (ascend as the smoke of a furnace) began to fear that Our People had fallen into the Enemies Hands; however about half an hour after sun rise we discovered two small Boats at a great Distance coming out of the River's mouth, and clouds of smoke arising from the Shipping.

The boat sent to the north had run into difficulties and the candles carried by Captain Jones' party to start fires had burnt out. Day was "coming on apace," but Captain Jones could still make this report: "A light was obtained at a house disjoined from the town, and fire was kindled in the steerage of a large ship, which was surrounded by at least an hundred and fifty others, chiefly from two to four hundred tons, and lying side by side, aground, unsurrounded by the water. . . .

"I should have kindled fires in other places if the time had permitted; as it did not, our care was to prevent the one kindled from being easily extinguished. . . .

"The inhabitants began to appear in thousands and individuals ran hastily towards us."

Soon after we saw them fire on the Boats from the shipping, soon after we saw them fire on the Boats from the Shore, but most of the Cannon being spiked up by our People they could do but very little. The Boats were soon out of their Reach and came along-side with 3 prisoners for one left behind.

After firing the shipping at Whitehaven, Captain Jones and his crew immediately turned to another expedition ashore, this time, for the purpose of capturing as hostage Lord Selkirk, a friend of the King of England.

The same Day crossed over to the other side of the Bay to the Mull of Galway. Capt. Jones with Lt. Wallingsford and about 12 men went on shore at St. Mary's Isle with design to take Ld. Selkirk Prisoner. As he was not at Home and no man in the House, for the sake of his Lady & her Company they came off without doing any further Damage than plundering Him of plate to the amount of (as near as I can judge) 160 lb. weight of Silver.

Always a gentleman, Captain Jones later apologized to Lady Selkirk in a famous letter which explained that his plans to capture her husband were to make him the instrument whereby the Americans could obtain a "general and fair exchange of Prisoners." He also promised to purchase with money out of his own pocket the silver that had been distributed to his crew and to return it to Lady Selkirk at the first opportunity.

The crew of Ranger *was now ready to take on* HMS Drake.

FRIDAY, 24th.—Early in the morning our Capt. proposed making a second attempt to cut out the Ship in Caracfergus, which was now within a small Distance. The People, both officers & men, discover'd great unwillingness to make the attempt. Capt. Jones notwithstanding declared publickly his determination to go in. In short it seemed impossible to avoid it for the Tide & what little wind there was, had imperceptibly carry'd us in so far that there was very little chance of an Escape, and now which was about sun-rise we saw the Ship with Her Sails loos'd and had nothing to do but to get ready for Action. Our People at the same time discovering the greatest readiness to engage Her. When she [the Sloop of War *Drake*] came out at 11 almost Calm. About 12 Saw a Boat coming from the Ship which we Decoy'd and took on board a Midshipman & 5 Men; there being a light Breeze of Wind & understanding by the People from the Ship that she was coming Out to us; clung our wind and stood out under easy sail till 4 O'clock, P.M. & hove to for Her. She came up about 6 and hailed. After the usual Compliments were pass'd we wore Ship and gave her a whole broad side, without receiving a Shot: the Action continued till 5 minutes after seven, very warm, her two Commanding officers, being the one Capt. Burdon killed & the other Lt. Dobbs mortally wounded and about 20 of Her Men disabled and the Ships Rigging Sails & c. Very much damaged, they were

obliged to give her up by the wave of the Hat & a call for Quarters for, having the Second Time cut away their Ensign staff, they had no Colours to Strike.

The action between Ranger *and* Drake *lasted, according to Captain Jones' account, an "hour and five minutes, when the enemy called for quarters." For an interesting account of the sea battle and other exploits of the naval hero, see the Book supplement in* ALL HANDS, *June 1952, page 59, entitled "John Paul Jones: Gentleman-Commando."*

SATURDAY, 25th.—Very pleasant and almost calm a fine opportunity for repairing and fitting for Sea. From on board the *Drake* buried the Remains of Capt. Burdon with the Honors of War. Spoke a Brig from White Haven of about 300 Tons commanded by Capt. More. Put a Prize Master and Hands on Board Her. At 12 were not far from the place of action. About 2 O'clock P. M. having a light Breeze sent away the Fishing Boat's crew with a present of Money 17 Guineas and the *Drake's* Main Sail & M. Top Sail. In the evening committed the body of Lt. Wallingsford to the deep with Honours due to so brave an Officer.

MONDAY, 4th May.—Died of his wounds and the same day were decently buried the remains of Nathl. Wells, of Portsmouth, America.

THURSDAY, May 7th.—Arrived at Brest with the Ship *Drake* in Company.

MAY 9th, Saturday.—Sent on shore to the Hospital Pierce Powers, James Falls & Thos. Taylor from the *Ranger*. At the same time sent from the *Drake* 13 Prisoners.

SUNDAY, 10th May.—Arrived here the Prize Brig *Patience*.

FRIDAY, 29 May.—Drew a petition in behalf of my good Friend Simpson now in gaol in Brest which was sign'd by Lt. Hall, Mr. Cullam and myself & sent on shore to the office in order to go to the Commissioners at Paris.

THURSDAY, 18th June.—Rec'd news of an Engagement between a French & English Frigate not far from Morleaux. The French Frig. was ordered out to Adml. Byron to speak, she refus'd to obey, therefore were fired on by the Eng.—the action began about half past 4 on the afternoon of yesterday and continued 5 hours, though the Eng. Struck they were prevented bringing her off by Adml Byron's Squadron 12 Sail of the Line besides Frigates.

THURSDAY, 2nd July.—Had the company of Col Frazier and Mr. Pringle to Dine, afternoon went with them and Lt. Simpson & Hall on board the *Britaigne* and were treated with the greatest civility & respect from all on board.

FRIDAY, 3rd July.—This day arrived a Schooner called the *Spy* from New London with Dispatches from Congress.

SATURDAY, July 4th.—This being the Anniversary of American Independence, was observed as such. Our Ship was dressed 13 guns discharg'd at 10 O'clock; at undressing 13 more; on drinking the Duke de Chartre's Health 9 guns were fired; a number of Patriotic Toast were drunk; and universal Joy was diffused throughout the Whole Ship's company.

FRIDAY, July 10th.—This Day the *Lively* Ship of war was brought into this harbour. On her refusing to comply with the commands of Capt. of the Frigate by which she was taken, she received a broadside from the cannon & the fire from the Swivels & musketry both from below and aloft, which was returned by 3 guns when she struck. Her loss was about 20 kill'd & 40 wounded most of whom are since dead.

FRIDAY, July 7.—This day was brought in here the prize Cutter *Alert* of 12 guns the same which took the *Lexington* Brig of 14 guns Johnson Commr. She was taken by a Frigate.

SUNDAY, 28 June.—Last were brought in here Two Cutters from Guernsea taken by Frigate *Snow*.

WEDNESDAY, July 22.—Rec'd the news of C. De Astangs arrival in Boston.

On the 27th of July, Captain Jones turned over Ranger *to Lieutenant Thomas Simpson who came on board with orders to take command.*

This change of commanders was at Jones' request made on the 4th of July. He wrote to the Commissioners at Paris: "When Congress thought proper to order me to France it was proposed that the Ranger *should remain under my direction . . . as the French ministry have now in contemplation plans which promise honor to the American Flag, the* Ranger *might be very useful in carrying them into execution . . . I will with your approbation . . . leave [Lieutenant Simpson] the command of the* Ranger. *By this means, and by some little promotions and attentions, I hope to be able to satisfy the* Ranger's *crew, so that they will postpone their return as long as the service may require."*

Ezra Green's diary continues, covering the movements of Ranger, *which returned safe in America. Green was to survive the war and live well into the middle of the nineteenth century.* Ranger *continued under command of Lieut. Simpson (for whom Captain Jones had little liking) until she was destroyed at Charleston. John Paul Jones himself had by this time already accomplished feats which were to establish his lasting reputation in naval annals.*

FIRST SALUTE ever paid by a foreign power to the American flag came from the French on 14 Feb. 1778.

TAFFRAIL TALK

THE REST OF THE NAVY can have its jet propulsion and nuclear power. The U. S. Naval Home, Philadelphia, Pa., will still go along with "Dexter," reported to be the only horse in the Navy. His keeper is believed to be the only Civil Service employee left with the classification of "stable-keeper and driver."

Dexter is 23 years old with an estimated useful life of two more years. His keeper is 68 and must also retire in two more years.

Back in 1954, the Inspector General of the Fourth Naval District scented out the presence of Dexter and his keeper during his annual inspection. As a result, consideration was given to the advisability of disposing of Dexter and eliminating the stable-keeper's position for reasons of economy.

Investigation revealed, however, that the horse renders important services around the grounds by hauling trash, debris, etc. The keeper performs additional light labor.

Furthermore, Dexter is considered a pet by the old sailors who live at the home. They feed him sugar and apples and frequently make him a topic of conversation. Thus, Dexter contributes to the morale of the residents of the home. Since the mission of the home is to make the residents comfortable and happy, it is felt that Dexter contributes to that mission, too.

Nevertheless, there was still the factor of economy to consider. The investigators found that during one year the total expense of the horse's upkeep came to $271.50. The stable-keeper's pay was $1.39 per hour. If his job were eliminated it would be necessary to hire a laborer at the higher salary of $1.46 per hour. Still, the cost of the new laborer, as compared to the cost of Dexter and his keeper, would have meant an estimated savings of $124 per year.

There was one more factor to be considered—the cost of a truck to haul trash and debris if Dexter were put out to pasture. That clinched it. The investigators decided Dexter's retention was justified on economic grounds and recommended that horse and keeper be retained until they reach retirement age.

Today the residents of the Naval Home are still plying Dexter with apples and sugar, and the horse, the keeper and the old sailors are all happy about the arrangement.

So is the Inspector General.—CAPT J. R. McCormick, USN, Inspector General, Fourth Naval District.

★ ★ ★

As an item in your ever-hear-of collection—ever hear of the LST that was an aircraft carrier? The records show that USS *LST 525* actually did serve as an aircraft carrier during World War II. Fitted with a plywood flight deck, she carried 10 Piper Cubs and their Army pilots, and operated off the west coast of France in 1945.

The All Hands Staff

The United States Navy

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

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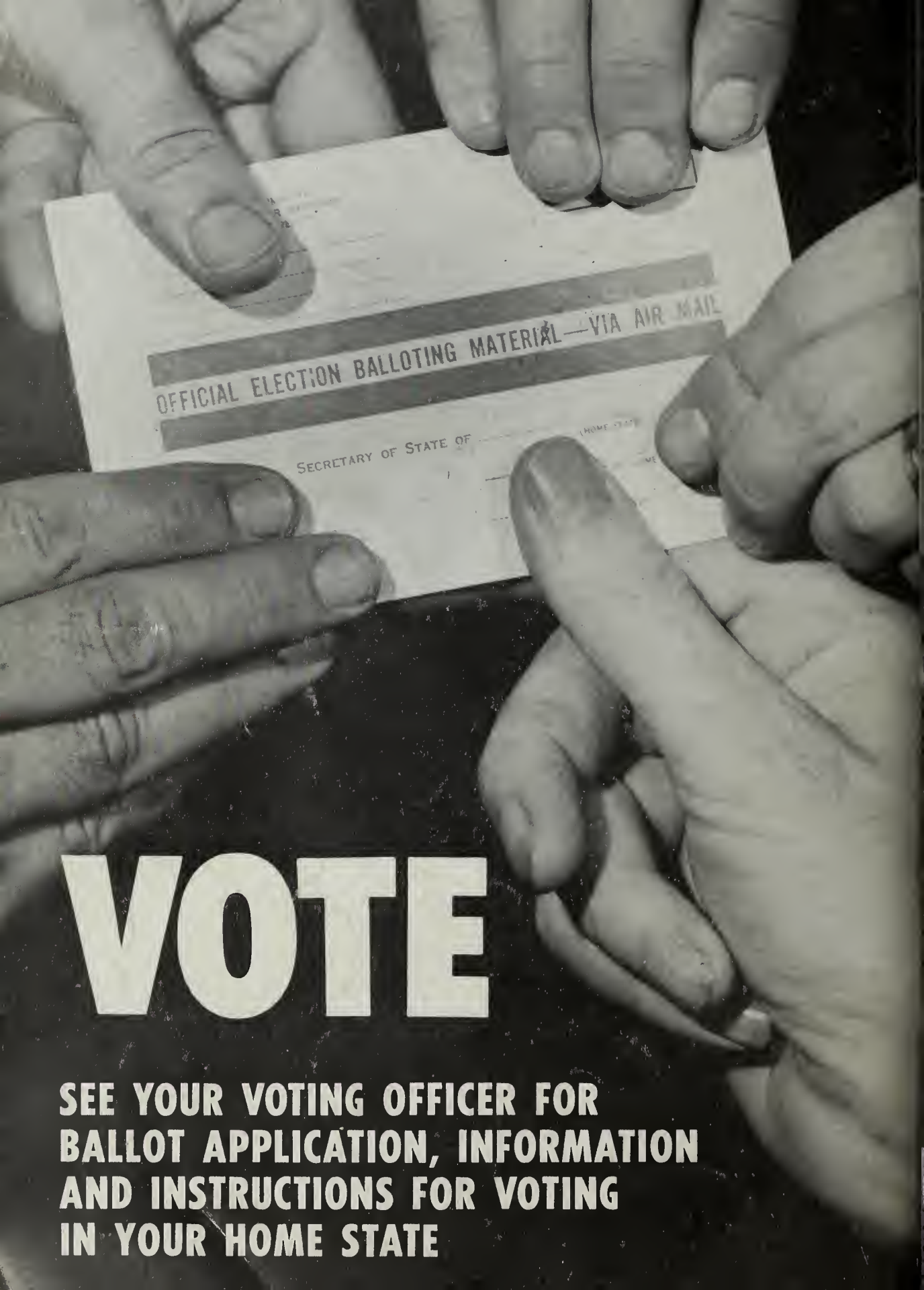
• AT RIGHT: MORNING COLORS are raised at stern of USS *Markab* (AD 21) as she is made ready to rest alongside DDs she tended that are now part of the Reserve Fleet at Charleston.

D21
MAR



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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

208.3:476

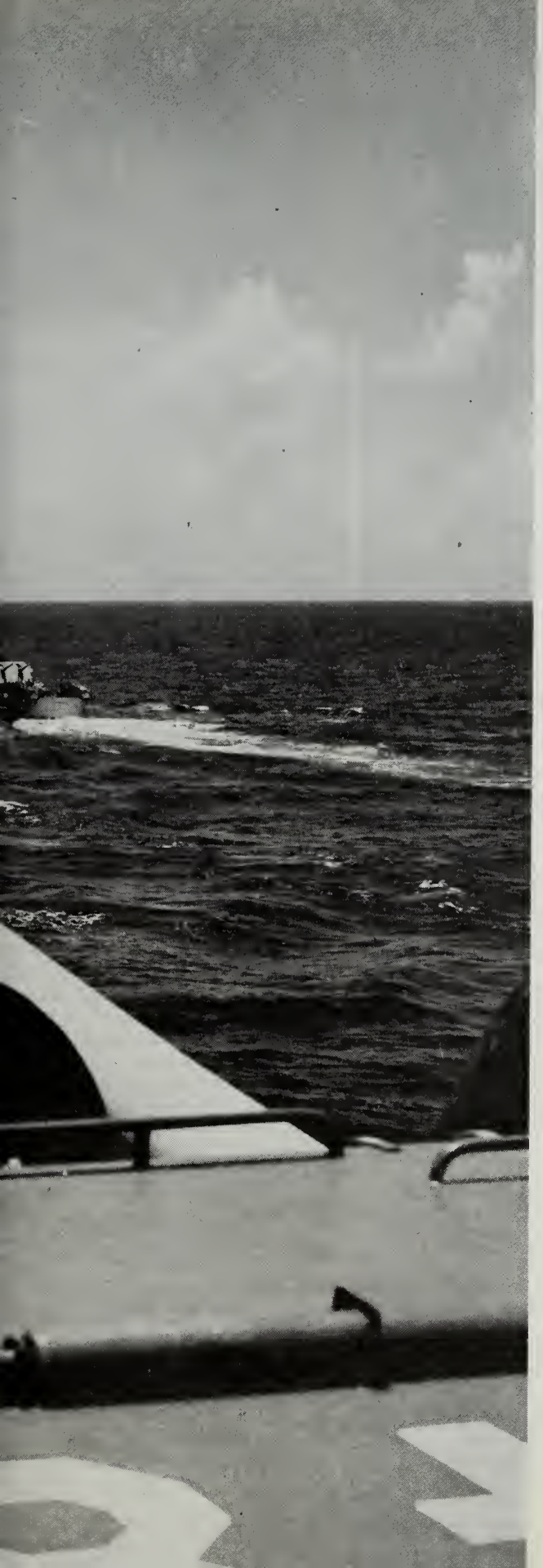
OF FLORID
SOCIAL
SCIENCES

This magazine is intended for 10 readers. All should see it as soon as possible. PASS THIS COPY ALONG

359.

OCTOBER 1956

108



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

OCTOBER 1956 NavPers-O NUMBER 476

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The Chief of Naval Personnel

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• **FRONT COVER: GOOD DUTY** — K. G. Fidler, SA, USN, on duty aboard USS *The Sullivans* (DD 537) shows 'scope' of his ship to a pretty young visitor while in port.

• **AT LEFT: GAS FOR TWO** — USS *Newport News* (CA 148) commences approach to fleet oiler USS *Powcotuck* (AO 108) to make it a double refueling with USS *Bristol* (DD 857) while she cruises in Caribbean.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.

YEOMAN'S DUTY on sub puts big job in small quarters. *Right:* DKs are kept busy helping to pay off the Fleet.

Group V: Their Jobs Range fro

WHAT ARE THE (1) toughest—and (2) softest—jobs in today's Navy? That's a question for which every Navyman has the answer, with practically every man enviously eying the "plush" billet assigned to some other fellow. To answer the question, YOU, of course, have No. 1, and you know plenty of men who are right up there for No. 2.

On any ship you'll likely find deckhands envying the men assigned to guns; guys on the guns envying the men in engineering billets, while within that department lads assigned to engine flats and firerooms are likely to be casting covetous eyes at billets in the various shops. Meanwhile, the messcooks are probably envious of everybody else aboard.

They and all the rest of the crew consider holders of Group Five ratings to be the No. 1 candidates for the No. 2 category in the aforementioned question.

It's true that the Navymen in Group Five billets—the administrative and clerical ratings—are not usually exposed to topside weather conditions, the hardships of steaming watches and endless gunnery drills; yet it's also true that their duties are among the most demanding, both from the standpoint of work and responsibility. Brawn and muscle may not be among the top requirements — but don't underestimate the Group Fivers from this standpoint either.

Take for instance the "pencil pushers," who've long had automation in the guise of the typewriter. Listening to the deck apes, the snipes or the messcooks, you'd think that the speakers had the only jobs in the Navy calling for a little muscle work.

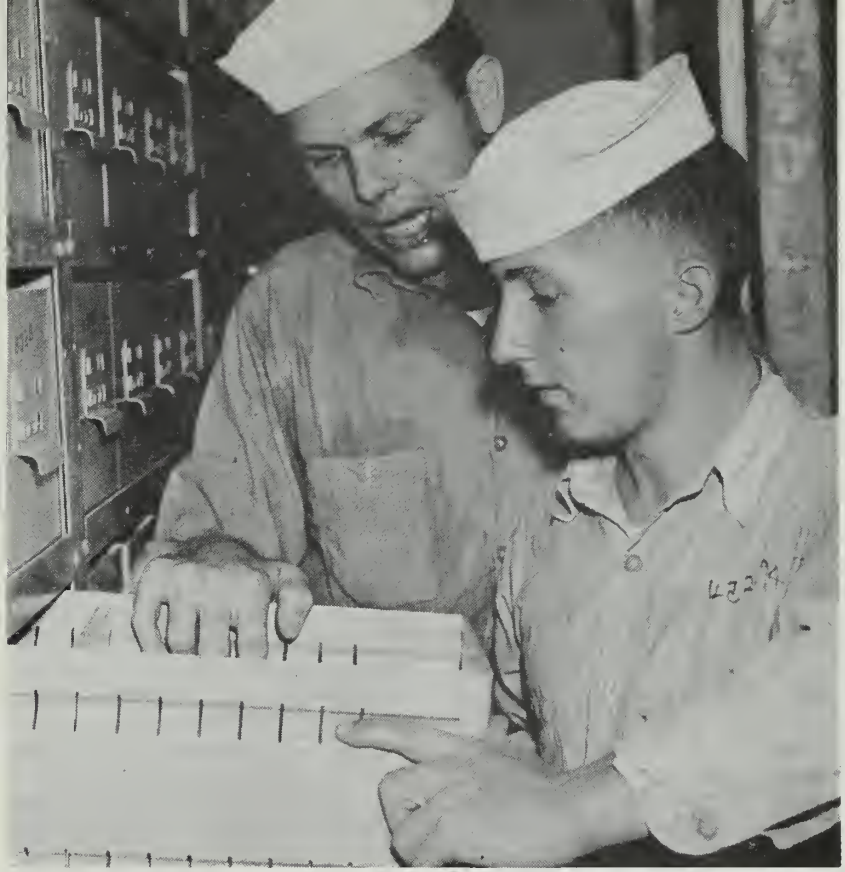
And that might have been true back in the days when the predecessors of yeomen, personnel men, disbursing clerks and storekeepers were armed with a fistful of pencils and their jobs were of a size to match. Today, it's different.

The typewriter is a tool of a new Navy, a Navy which really moves on an ocean of paper as well as the seven seas. And as ALL HANDS pointed out recently, some anonymous statistician (probably a YN or PN with a few moments to spare) came up with figures to indicate that a typist in the course of a fairly good day's work applies nearly 11½ tons of pressure to his typewriter keys. Certainly no "soft berth" billet-seeker would take on a job entailing that much physical labor on top of the brain work involved.

Be that as it may, the duties performed by the ten ratings of Group Five are so important in today's Navy that it's difficult to imagine operating without their services. They are responsible for your food, your pay, your leave and liberty, your mail from home, the supplies you use in performing your duties and the communications which keep your ship operating as an informed member of the Navy's team.

Perhaps most important of the Group Five ratings, from the standpoint of the Navy's duty to fulfill its obligations as a part of our nation's defense team, are those concerned with communications — the radiomen (RM) and communications technicians (CT). Their jobs, in brief:

- ***Radiomen*** are the most important human links in the naval communications setup, an electronic chain which enables a Navy ship anywhere in the world to receive instantaneous orders from headquarters—or enables you to receive urgent personal messages.



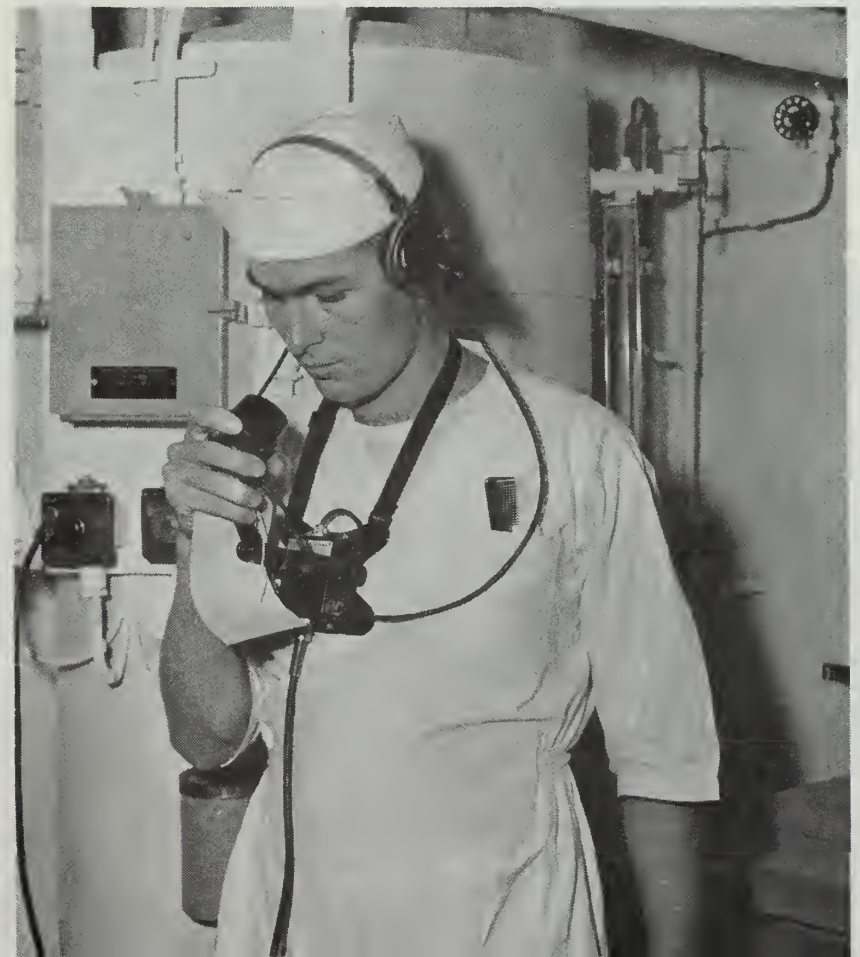
STOREKEEPERS CHECK their wares below decks on a carrier. *Below:* Ship's Servicemen, like barber shown here, also man battle stations with rest of crew.

HQ to GQ

• ***Communications Technicians*** are engaged in highly specialized work, and at first glance their duties may seem to have little effect on you, especially in comparison with some of the other ratings in the administrative and clerical group. Mostly, CTs are assigned duties in connection with classified research and engineering of communications systems, apparatus and practices—but they may also be assigned to registered publications issuing offices or the armed forces courier service.

One official Navy publication states that "Without the ability to communicate, our ships and planes would be as vulnerable as toy sailboats on a frog pond or as paper kites over a playground." The CTs and RMs with their myriad communications systems ranging from landwire and cable devices through general and special radio devices and such gadgets as radiotelephone, radioteletype and facsimile, are the ones who keep our global Navy supplied with vital-up-to-the-second "info" on operations, instructions and world events.

Of course there are other systems —mail, and such visual signals as flaghoist, semaphore and flashing



RM
RADIOMAN

YN
YEOMAN

PN
PERSONNEL MAN

SK
STOREKEEPER

DK
DISBURSING CLERK

MA
MACHINE ACCOUNTANT

light—but they are mostly limited to run-of-the-mill correspondence and to tactical exchanges between ships operating in company.

Equally vital to an efficient fighting force—and much closer to the heart of the average swabbie—are the "supply corps" ratings:

• ***Storekeepers*** (SK) are the men responsible for receiving, storing and issuing clothing, foodstuffs and various sorts of gear and mechanical equipment (and are consequently a primary target for "cumshaw artists").

• ***Disbursing Clerks*** (DK) are the boys who handle the bankroll (and they're notoriously unsympathetic to "gimme something for nothing" characters). Among other duties, the DKs open, maintain and close your military pay record; prepare payroll certification sheets and money lists, public vouchers, transportation requests and meal tickets; do the paperwork involved in your pay allotments, allowances and savings deposits. They also make sure that Washington gets a full report on what's being done with the taxpayer's money.

• ***Commissarymen*** (CS)—another prime target for the cumshaw brigade—see to it that you get your "three squares" each and every day, plus maybe an occasional snack or midnight ration on the side. Working in the Navy's galleys, bakeries and butcher shops, they share heavily in the responsibility for keeping you healthy, happy and full of beans. Baking, broiling, frying, mixing, seasoning and flavoring their way through both night watches and day watches is only a part of the commissaryman's duties, however; you're just as likely to find him making up menus, or preparing the requisitions and reports required for getting provisions or doling them out to the various messes; or even supervising the receipt, handling and inspection and stowage of provisions coming aboard.

• ***Ship's Servicemen*** (SH) operate such "service" stations as barber shops, cobbler shops, tailor shops, laundries, Exchange stores and gedunk stands. If there are any soft drink vending machines or gas stations around your station, the ship's servicemen also operate those.

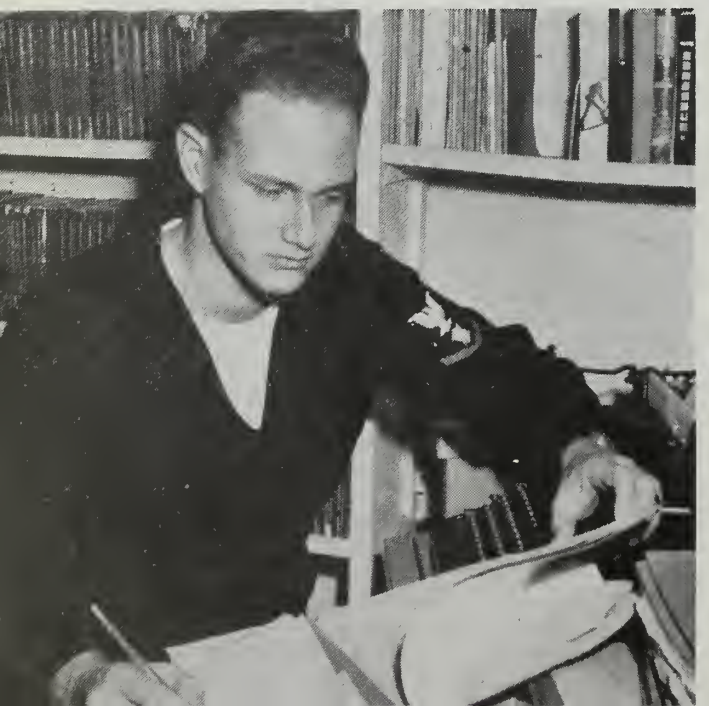
Take these brief descriptions of the jobs performed by the SK, DK, CS and SH ratings, take a look at the job they do aboard your own ship or station, add to this the accounts, reports, equipment they're responsible for, the books to be balanced, then you'll appreciate the growing importance of these ratings in today's Navy.

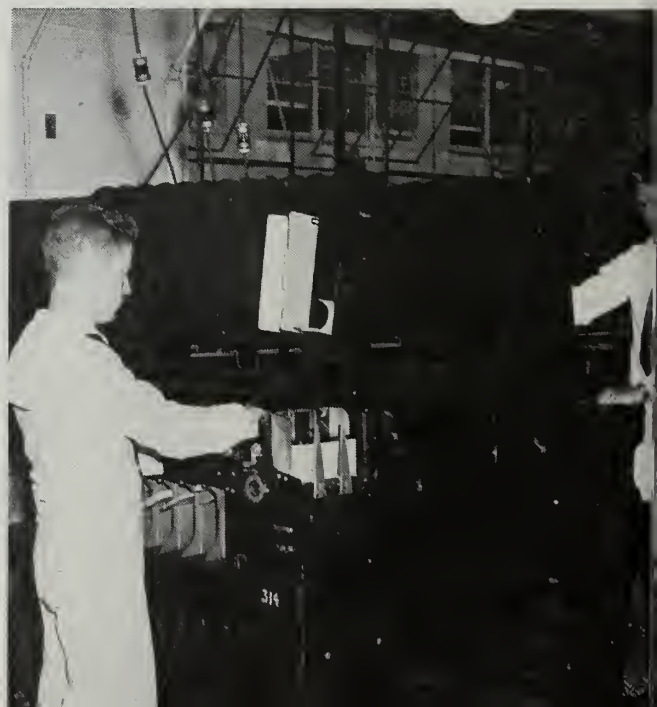
The Navy's early sailing ships with their small crews frequently stocked enough water for three months and enough food (such as it was) for a six months' cruise. No fuel was necessary; payday was usually an end of-the-cruise matter. Along came steam and the need for coaling stations, to be followed by diesels and fuel oil, machinery repair parts, rapid fire guns, rockets, aircraft and electronic equipment, a vast fleet of auxiliaries standing behind the ships-of-the-line, with crews numbering in the hundreds and thousands, instead of the dozens.

All these add up to the need for "supply specialists" to handle logistics on the local level: your cooks, bakers and gedunk makers, storekeepers who can issue you anything from paper clips to foul weather gear, disbursing clerks to insure that your pay accounts are kept straight and that you get your share of the "long green" twice each month.

Paperwork artists to the *n*th degree are your yeomen and personnel men, holders of a mighty important pair of ratings wherever any naval

PERSONNEL MEN perform important job of keeping records. *Right:* Machine Accountants run cards through sorter.





activity is in operation. To be sure, they are typewriter punchers or pencil pushers, but spend a couple of months aboard a ship or station which doesn't have a body in every billet allowed for these two ratings and you'll most likely have something to scream about besides the liberty situation.

According to the *Navy Occupational Handbook* the duties of the two ratings look something like this:

• ***Yeomen*** (YN) "perform clerical and secretarial duties involving typing, filing, operating office duplicating equipment, preparing and routing correspondence and reports, maintaining records and official publications, and requisitioning office supplies."

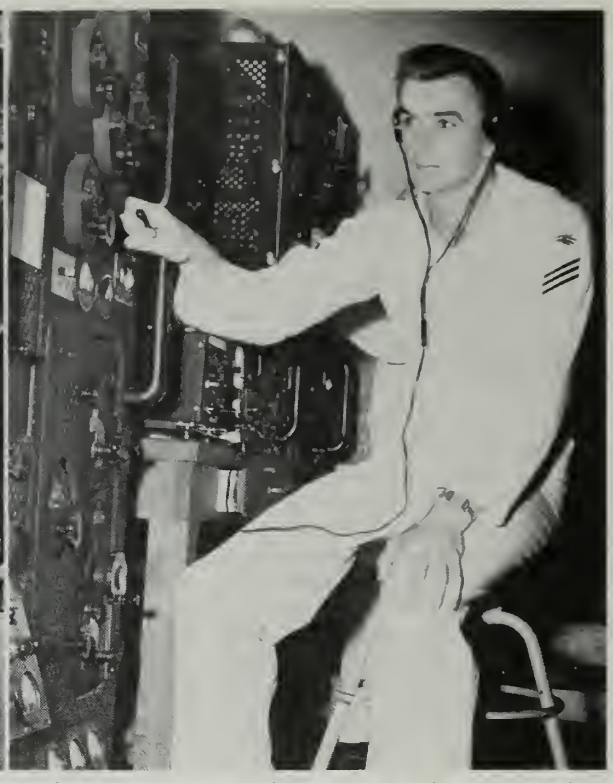
They may also serve as reporters for courts-martial and as stenographers, ship's secretaries, chaplain's assistants, or general flunkeys in the I&E office, log room—or just about any other "headquarters" which has a fair amount of paper work to be done, with or without typewriter.

• ***Personnel Men*** (PN) usually perform duties involving preparation and maintenance of personnel records and reports (including officer and enlisted men's records and personnel accounting reports), classification, training and educational information, morale services, and separation and civil readjustment; they also conduct billet analyses and assist in organizational analysis on ships and at shore stations. And usually they are the ones responsible for seeing that your chit accomplishes its purpose, regardless of whether it's a request for leave, liberty or the pursuit of something else which will make you happy at the moment.

The remaining two ratings in Group Five are machine accountant (MA) and journalist (JO). Comparatively speaking, both ratings are limited to a fairly small group of men and women, yet both ratings perform indispensable services to the Navy. For instance:

• ***Machine Accountants*** are the "cogs" who operate and maintain the machinery of the Navy's accounting systems. For every individual they have a hand in the health, pay, and qualifications records; for every ship and station they play a part in the allotment of personnel, receipt and transfer of supplies, and the disbursement of money. They help keep the records for every piece of equipment the Navy owns. Assigned only to activi-

WHAT'S BUZZ'N — RMs (above) keep the word passing. *Below:* SK checks inventory and JO writes press release.



COMMISSARYMEN are a busy crew manning the galleys. *Right:* Graduating Radioman is ready to join Fleet.

ties where large numbers of accounting machines are in use, the MA is expected to know the ins and outs of all types of business machines, including sorters, collators, reproducers, interpreters, tabulating printers and multipliers. In addition, the "hep" MA knows the procedures governing the Navy's systems of accounting for personnel, stores, parts and disbursing.

• ***Journalists*** spend their duty hours (and frequently a good many off-duty hours as well) in seeing to it that the American taxpayer knows what his Navy (and his acquaintances in the Navy) are doing. JOs assigned to the larger ships and shore stations may be performing a number of jobs in connection with maintaining high Navy morale and in keeping the folks back home informed of the developments, accomplishments and policies of the Navy. You may find them running or helping to run many ship and station papers; preparing ship's histories and biographies; supervising photographers in recording local events of importance; and grinding out news and human interest stories for release to hometown newspapers.

Finally, in addition to the ten general service ratings, Group Five includes 10 emergency service ratings into which YNs, PNs, SKs and CSs may be placed during wartime. These include YNT (Typist) and YNS (Stenographer); PNI (Classification Interviewer), PNT (Training Assistant) and PNA (Personal Records Clerk); SKT (Technical Storekeeper); CSG (Ship's Cook), CSB (Butcher) and CSR (Baker).

One other Group Five rating, Teleman (TE), is in the process of being disestablished, with the rating's mail-handling duties being taken over by yeomen.

In large part, the Group Five ratings, along with Group Six (such miscellaneous ratings as lithographer, musician and draftsman), Groups Nine and Ten (Medical and Dental) and Group Twelve (Stewards) form a service force designed to keep the fighting Fleet operating at peak efficiency.

While your Deck, Ordnance, Engineering and Hull, Aviation and Construction rating groups (along with the Electronics and Precision Instrument Group personnel) are serving and maintaining the Navy's bases, planes and guns at peak efficiency, men in the service force ratings insure that you, too, are operating in top form.

They do this by handling your incoming and outgoing mail and any emergency messages concerning you. They keep your pay coming, keep your records up to date and keep you informed of changes in directives which may concern you. They help you get leave, liberty, schools and transfers.

They see that you are well and properly fed, kept supplied with clean laundry and such diverse items as haircuts, razor blades, shoestrings and cleaning gear.

Call them what you will, but, remember, your Group Five Navymen are an indispensable part of the Navy team, a group which works long and hard both at sea and in port to help make you happy and efficient. But that's just half of their job.

The other half: being well-trained "Johnnies-on-the-spot" whenever the call to battle stations is sounded, helping to man guns or sound-powered phone circuits, doing duty as members of damage control teams—being, in fact, Navymen who know both the military *and* professional duties of their rates.

—Barney Baugh, JO1, USN.

Men of Iron

"For the want of a nail the shoe was lost; for the want of a shoe the horse was lost; for the want of a horse the rider was lost; for the want of a rider the battle was lost; for the want of a battle the kingdom was lost—and all for the want of a horseshoe nail."

The Navy doesn't do much of a business in horseshoe nails. But on every ship there are thousands of parts of equipment just as important as was the proverbial horseshoe nail. When one of these parts is damaged on a ship it frequently means a new part must be manufactured to replace it. When that part must be cast from metal the molder will be on the job.

MLs were first incorporated into the Navy's rating structure back in 1917. From World War I until early World War II they made their molds and poured their castings aboard battleships, repair ships and at shore stations.

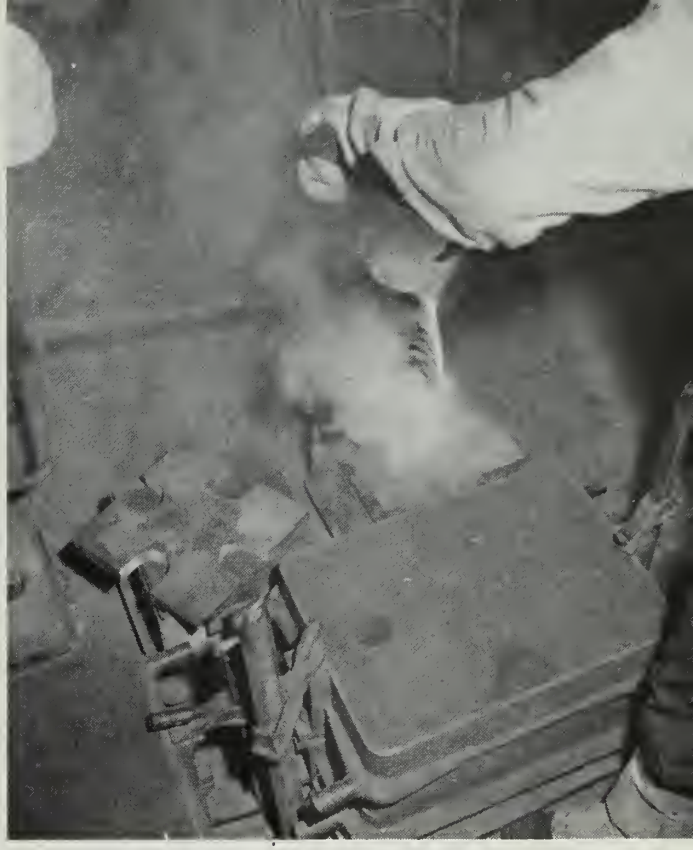
In 1942 foundries were removed from older battleships and were not included on new BBs. Thus, molders disappeared from crews of first-line fighting ships, but they are still vital members of supporting forces keeping the battle Fleet in fighting trim.

The ML rating was not set up in its present form until 1943. Before that (except for the period from 1926 to 1928, when an ML3 rate was authorized), all MLs were first and second class POs. A molder striker could be either a seaman or a fireman. After 28 months in the Navy he was eligible for promotion if he could meet the second class requirements. When a molder made CPO he became a chief metalsmith. Today, all molder strikers are firemen.

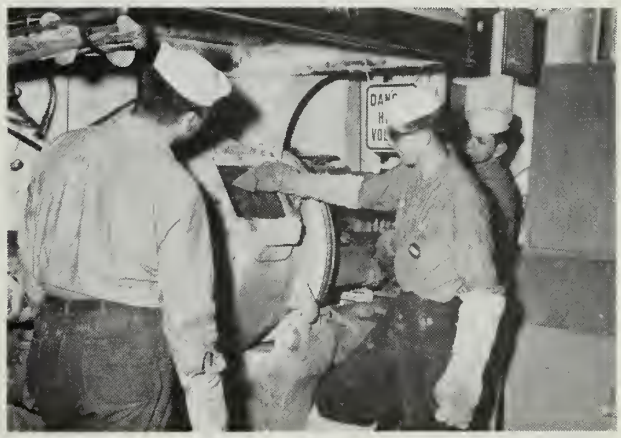
A job typical of MLs would be making a hinge for a range-finder cover. The pattern, from which the molder makes the sand molds is a slightly larger reproduction of the object in wood. The molder makes an impression in sand, rammed tight in a box-like frame called a flask. Next he opens the mold and removes the wood pattern, leaving a cavity in the sand, and closes the mold again. Then he melts the metal, pours it into the mold, lets it cool, removes the casting from the mold, and passes it on to the next shop for machining.

Sounds simple, doesn't it? But to do his job right the ML is expected to know everything from the atomic structure of various metals to the mathematical methods of figuring the area, volume and weight of a casting.

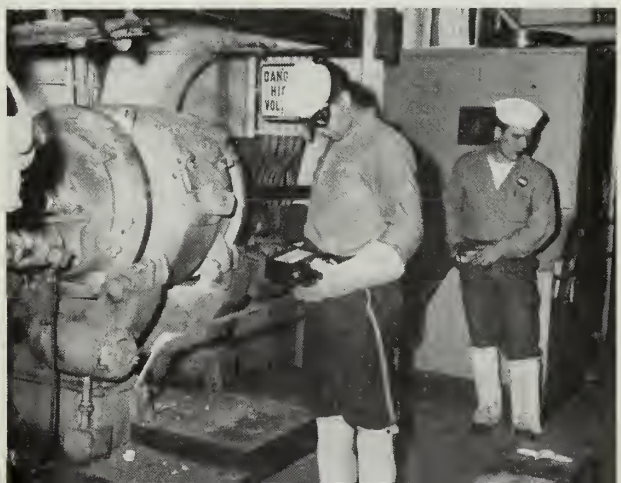
It's a lot more complicated than making a horseshoe nail. These photos from *USS Sierra* tell the story.



FLOATING IMPURITIES are held back as metal is poured into sprue hole. Below: Navy molder charges the furnace.



MOLTEN METAL is poured into bull ladle. Right: Molder prepares to check for pouring temperature.



THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **AT, AQ, GF BILLETS OPEN**—If you can meet the eligibility requirements listed below, there's a billet waiting for you which offers an excellent career opportunity as an Aviation Electronics Technician (AT), Aviation Fire Control Technician (AQ), or Aviation Guided Missileman (GF).

Men who meet the following requirements are eligible:

1. USN personnel in Group IX ratings who have decided to make the Navy a career, in pay grades E-4 and E-5 in ratings *other than* AT, AE, AC, AG, AM, AQ, GF and PR.

2. Minimum of three years' and maximum of eight years' active service.

3. Three years of obligated service. If you have less than the required three years, you must agree to extend your enlistment for a period of one, two or three years to meet the obligated service requirements. If the aggregate of extensions amount to four years, you may be discharged and immediately reenlisted for four or six years.

4. Minimum test scores: GCT/ARI—110; MECH or MK ELECT—50.

5. Favorable professional performance as indicated on page 9 of your Enlisted Service Record.

If qualified, you may submit your request via your commanding officer to the Chief of Naval Personnel (Attn: Pers B1232).

If selected, you will be assigned training to qualify you for the change in rating in equal pay grade of the rating to which change is being made. In other words, upon successful completion of this training your rating will be changed to AT, AQ or GF in equal pay grade.

Training for each rating in pay grade E-4 will provide the equivalent of Class "A" School in one of the selective emergency service rates, and training for each rating in pay grade E-5 will afford Class "A" School sufficient to meet the qualifications for the general service rating. If you do not successfully complete this training, you will be reassigned in your old rate to other duty without penalty.

When undergoing training, you may qualify for advancement in the rating you now hold and will be advanced if authorization is received before the date of change to your new rating.

Further details may be found in BuPers Inst. 1440.13A.

• **NEW WHITE JUMPERS TESTED**—Fleet trials to test an enlisted dress white jumper, with blue collar and cuffs and white striping, as a possible replacement for the present plain undress white jumper are now underway.

Before World War II, a dress white jumper with a blue wool collar was worn, but problems of manufacture, comfort, laundering, shrinkage, lint and fading caused its discontinuance. However, the new dress jumper will supposedly overcome these faults by using a washable dark-blue cotton twill, instead of wool, for the collar and cuffs.

• **MRS. U. S. NAVY** — Mrs. Beverly J. Ellis, wife of Alfred R. Ellis, PN2, USN, of the Naval Station, Norfolk, Va., was selected as "Mrs. U. S. Navy, 1956" in the contest conducted by the Fleet Reserve Association. The finals of the contest, in which 34 area winners competed, were held at Long Beach, Calif. Further details on the contest will appear in a forthcoming issue of ALL HANDS.

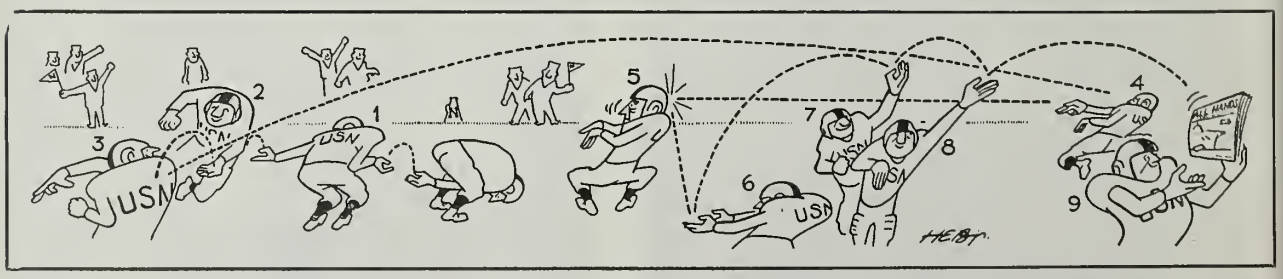
• **KOREAN PUC LIST AVAILABLE**—The yeoman's office is going to be a more popular spot than ever before when it becomes known that BuPers Inst. 1650.5B has arrived. It is this lengthy (45 pages) instruction that spells out the regulations concerning the acceptance and wearing of certain foreign awards for service between 27 Jun 1950 and 27 Jul 1954 and, in addition, provides a complete list of commands and units awarded the Republic of Korea Presidential Unit Citation Badge with participating dates.

Public Law 354, 83rd Congress, was enacted for the special purpose of granting the consent of Congress to permit members of the U. S. armed forces serving in Korea to accept medals and decorations from co-belligerents also engaged in operations in the Korean area. By order of the Secretary of the Navy, 27 Jul 1955 was established as the terminal date for naval personnel to accept foreign awards for service in Korea.

Foreign awards which were tendered and accepted under the following circumstances may be legally worn by members and former members of the Navy and Marine Corps:

1. The foreign government tendering the decoration, order or emblem must have been participating with or under the United Nations command in Korea.

2. The award must have been one conferred by its own military forces by the sponsoring government.



PASS THIS COPY ON—Remember that this issue of ALL HANDS must score with at least nine other Navymen.

3. The recipient must have served all or any part of the period from 27 Jun 1950 until 27 Jul 1954 within the territorial limits of Korea or in nearby waters.

The Korean PUC was tendered to certain United Nations units by the Republic of Korea and acceptance has been authorized for naval personnel by the Secretary of the Navy.

During the earlier phases of the Korean conflict, the President of the Republic of Korea cited numerous commands individually and although many of these units maintained operational and organizational status, he did not again singly cite them, but rather extended their eligibility by including these commands in his citation addressed to the Seventh Fleet dated 27 Jul 1953.

The Korean PUC consists of a ribbon only, enclosed in a gold metal frame; no medal is involved. No device is authorized to indicate a second award. This ribbon is worn after all U. S. ribbons and the United Nations Service Medal and after all other foreign personal decorations.

If qualified, and you have not yet received authorization to purchase and wear the Korean PUC, you may make application to your commanding officer. Reservists may request permission from their district commandant and veterans may submit their applications to the Chief of Naval Personnel (Attn: Pers E2 for officers and Pers E3 for enlisted personnel) or to the Commandant of the Marine Corps, as appropriate.

• TRAVEL RULES UPON RETIREMENT—If you decide to travel or live abroad for a period of more than six months after you retire, your service and health records will be transferred to the Commandant, Ninth Naval District, for maintenance and custody. The same holds true for Naval Reservists on inactive duty and for Fleet Reservists.

Excepted from this new policy are personnel traveling or living in areas under the jurisdiction of ComNavFE, ComNavPhil, or ComNavMarianas. Records of these individuals will be forwarded to the appropriate command for custody.

If you plan to travel abroad, you must obtain permission from the commandant of the naval district in which you live. Upon granting permission, the commandant will inform you that your records will be transferred to ComNine. It then becomes your responsibility to keep ComNine advised of any later change of address or status while you are abroad. When you return, you must notify ComNine of your new stateside address. If this address is not in the Ninth Naval District, ComNine will transfer your records to the appropriate naval district.

Further information may be found in BuPers Inst. 1085.41.

• NAVY SAVINGS MADE EASY—It's now a lot easier to take part in the Navy Savings Deposit Program. A number of changes have been made which make the savings program much more attractive.

For one, you can now make deposits in your Navy savings account by requesting in writing that your pay record be checked each month. Heretofore, each deposit had to be made personally by the individual. Under the new system, your request will specify the amount to be deposited each month and the number of months the deposits are to be made or that the deposits are to be made indefinitely.

Another welcome change is that you can now draw out your savings with accumulated interest before the expiration of your enlistment. Of course, there must be an emergency as approved by your commanding officer.

In addition, it is no longer necessary for you to visit the disbursing office to initial each deposit. Instead, your letter requesting checkage of your pay for deposit will suffice. The disbursing office will do the rest.

The request for checkage of your pay for deposit in the Navy savings account may be cancelled by you at any time. This request must also be made by you in writing.

As you probably know, the Navy Savings Deposit Program makes it possible for your money to work for you at an interest rate of four per cent yearly. This is more than you get at most banks. You can save any amount per month that you desire.

Enlisted men in the Navy and Marine Corps (except enlisted personnel of the Naval Reserve on active duty for a period of less than six months) are eligible to use the Navy Savings Deposit Program, which was authorized by Congress in 1899. Commissioned and warrant officers, hower, are not eligible to use this savings program.

HERE'S YOUR NAVY

Not many ships in our modern Navy have the distinction of being classified "unique," unless they are the first of a new class or a prototype.

However, "unique" — in its true meaning—is just the word to describe USS *Alameda County* (LST 32).

The "former" LST has a dual status. She's the oldest, yet the newest. Built in the early days of World War II, *Alameda County* is believed to be the oldest LST in commission. Although still listed as a landing craft, she has been converted and modified for evaluation as an amphibious aircraft tender.

As such *Alameda County* challenges any ship that claims fame for being unusual. To add to its unique situation, the skipper's billet calls for an aviator with the rank of commander.

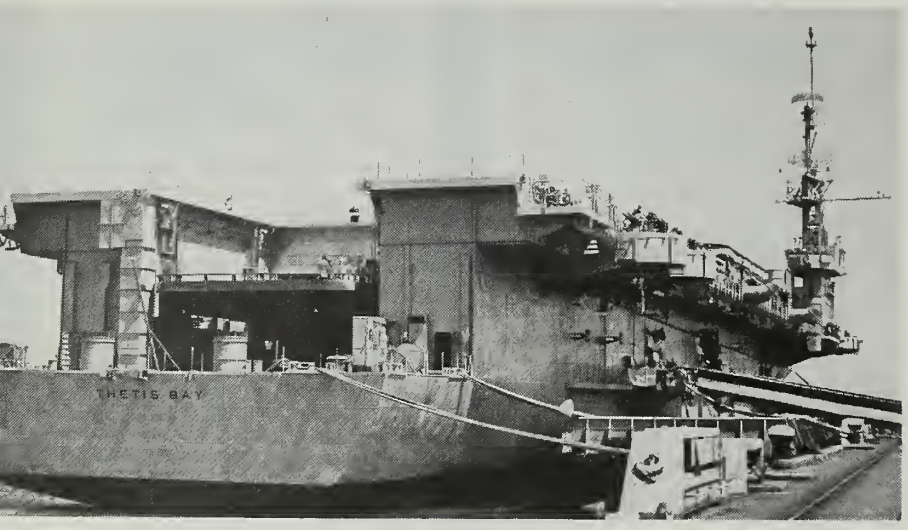
Currently operating out of Naples, Italy, *Alameda County* is a most versatile ship. Not only is she capable of handling or servicing both land and seaplanes but is capable of setting up a seadrome and building an airport as well.

Stored in *Alameda County's* cavernous tank deck and ready for instant use are such items as huge as gas trucks, ambulances, cranes,

electric vans, fire trucks, fork lifts, jeeps, messing facilities and even materials to build appropriate housing.

To set up an advance aviation base, this unique ship approaches the beach near the selected location, lowers her bow ramp and starts unloading. Bulldozers and other construction equipment roll out first and begin groundwork on the air field.

For her seaplane tending role, *Alameda County* is equipped with two complete seadromes, a gasoline bowser boat, an aircraft rearming boat, a radio equipped search and rescue craft and two LCM.



Helicopter

The Navy's first helicopter assault aircraft carrier has been commissioned at the San Francisco Naval Shipyard. The ship is uss *Thetis Bay* (CVHA 1), formerly the escort carrier CVE 90. Extensive modification has equipped the carrier to operate helicopters exclusively and to accommodate 900 combat-equipped Marines, in addition to the "ground" personnel of embarked Marine helicopter squadrons.

Thetis Bay will join the Pacific Fleet in September. As an aircraft carrier she will be under the "type" command of Pacific Fleet's Air Force commander; while operating in her new mission, however, she will be under operational control of the Commander Amphibious Force, Pacific.

Commissioning of *Thetis Bay* as CVHA 1 is a phase in a joint Navy-Marine Corps effort to develop and refine doctrine, tactics and procedures under a new concept of warfare, one known as vertical envelopment. This new concept of amphibious assault consists of multiple vertical envelopment from the air, joined with surface attacks from the sea. The versatility of three-dimensional assault is thus combined with the mobility of the U. S. Fleet.

With close supporting fire from Navy ships and carrier-based aircraft, the helicopters, loaded with combat troops, are launched from

COPTERS FLY over *USS Thetis Bay* (CVHA 1). Above: Stern has new elevator and first copter lands on first CVHA.

Assault Flattop Makes Her Debut

carriers and approach the objective from several directions. They fly over the enemy defenses and seize critical points which dominate the landing area, thus freeing the beach for surface landings. Then landing craft and mechanized units move forward at the same time. The helicopter troops behind the beach are free either to advance or to work back toward the beach to link up with their parent forces.

While still in an imperfect state of development, this vertical envelopment concept has obvious advantages. Employing many ships and the larger and faster helicopters which are in the future, the concept offers great shock value because of the speed of attack and varied directional approach. It forces the enemy to disperse (because of the same possibility of attack from any direction) while permitting greater dispersion of our naval forces.

The need for a different system of amphibious assault became obvious when the first atomic bomb was dropped. Naval and Marine officers realized that large concentrations of men, ships and landing craft in a beach area were extremely vulnerable to an atomic attack. A new technique was needed to moderate the threat of modern atomic weapons, and tactical dispersion of troops by air seemed to be the best answer. Helicopters—although their uses were still largely theoretical—seemed to be the best answer for the new method of assault. Capable of loading and unloading from a hovering position, or of landing wherever a man could stand, the helicopter could also traverse any terrain and operate in any climatic area.

With the Korean conflict, helicopters effectively demonstrated their value in combat operations, and development of flight deck procedures for operating "choppers" from carriers was so successful that helicopters have become an accepted part of the Fleet.

In 1954 the Navy Department decided to bring a World War II escort out of mothballs and convert it for use in further development of "airphibious assault" techniques. *Thetis Bay*, typical of some 50 WW II jeep carriers, was chosen for the job. Major aspects of the conversion job on the ship involved removal of catapult and arresting gear, radical rearrangement in the design of aircraft elevators, installation of helicopter maintenance shops, and provisions for accommodating as many as 900 combat-equipped Marines.

Now that the $8,000,000-conversion is completed, *Thetis Bay*, operating out of Long Beach, Calif., as a home port, will embark air and ground Marines and begin ironing out the wrinkles in the Navy's newest concept of amphibious warfare. The lessons learned in operating *Thetis Bay* are expected to provide a sound basis for future development of both carriers and helicopters.

Robot Copter, Controlled from Air or Ground Stations, is Demonstrated

A new remotely controlled helicopter which can perform a wide range of military missions has been developed under Army-Navy contract.

The system of control is somewhat similar to that of conventional aircraft. However, the problems that had to be overcome were far more complex in the remote control of helicopters, to enable them to rise and descend vertically, stand still in mid-air, and fly forward, backward and sideways, slowly or rapidly.

Uses for remotely controlled helicopters could be in battlefield surveillance, where a flying TV camera and transmitter directed from behind the front lines would give combat commanders a running view of action on the battlefield and movements behind the lines. Robot copters can lay communication wires rapidly over rough terrain, carry cargo and supplies to otherwise inaccessible areas, drop smoke bombs to mark targets for artillery fire, lay smoke screens to obscure troop movements, carry motion picture and still cameras for permanent records of battle surveillance, or be used as a highly maneuverable vehicle against such land vehicles as tanks. They can even lay a line of explosive charges through an area which has been spotted with enemy land mines and can explode those charges, thereby clearing a path for the movement of troops and vehicles. Therefore many dangerous missions can be accomplished without hazard to pilots and other personnel.

The first remotely controlled copter was flown from the ground control station by a helicopter pilot. Today it may be controlled not only from a ground station, but from another helicopter as well. Control can also be switched back and forth between airborne and ground control stations.

The new helicopters are lightweight and simply constructed. Compact remotely controlled rotary-wing units carrying the special equipment required for any particular mission can be more easily produced than can man-carrying helicopters.

EARLY MODEL of present experimental remote control helicopter makes a test run. Although controlled from ground, pilot stayed on board in case of trouble.

HEADQUARTERS FOR INVASION — Navymen land with amphibious assault troops to direct beach and water traffic.

Beachmasters in Training

WHEN A NAVY TASK FORCE commander directs an assault landing, he has a complex set of "eyes and ears" at the scene of action—an Amphibious Beach Group.

In this age of jet planes, guided missiles and atomic propulsion, the role of these beach groups is becoming increasingly important.

The men who form the teams are real amphibians. They land with the troops on an assault beach during an amphibious landing and help make possible the smooth transition of an amphibious invasion from a water-borne to a land-borne operation. They set up radio communications on the invasion beaches, salvage disabled landing craft in the surf zone and beach area, bring in the ponderous pontoon causeways for unloading heavy vehicles, and direct traffic in the beach area—boat traffic in the surf zone and vehicular and personnel traffic across the beaches themselves.

To keep abreast of the scientific advances that continue to change and sometimes revolutionize modern amphibious warfare, the Naval Reserve has developed a realistic training program for its Amphibious Beach Group Divisions.

Three such Reserve divisions are in operation today—one on the east coast and two on the west coast. In time of mobilization, these Reservists would be available as individuals to augment Naval Beach Groups in the regular establishment.

Members of the divisions are chiefly officers — LTJGs through CAPTs—men with World War II experience in shore party or general amphibious operations or Reservists whose experience, education or training qualifies them for duties in connection with the planning, organization and administration of beach groups. There are limited administrative billets for enlisted men with yeoman or personnel man qualifications.

The men who make up these groups are highly skilled specialists. They are experts in the operation of pontoon equipment. They know the ins and outs of construction on beaches, operation of LCM lighterage, installation of ship-to-shore assault bulk fuel lines. They are adept at salvage, traffic control and the hundred-and-one other details vital to successful assault landings.

RESERVE BEACHMASTERS from San Diego go through on-the-beach training to keep up with the latest methods of directing action on beachhead.

BEACHMASTER sets up headquarters in the sand to direct landing craft and supplies safely onto the beach.

At the present time, Reservists in Amphibious Beach Group Divisions are authorized 24 paid drills and 14 days of active duty for training (ACDUTRA) with pay each year. In addition, district commandants may prescribe up to 24 drills without pay.

The divisions are following the general trend in the Naval Reserve toward increased utilization of multiple drills and team training.

A good example of present day training is the drill recently carried out by members of Naval Reserve Amphibious Beach Group Division 11-1, San Diego, Calif.

Well in advance of the scheduled D-Day, arrangements were made with Commander Naval Beach Group One, at the Naval Amphibious Base, Coronado. With the assistance of the Naval Beach Group School, a training exercise was worked out, involving an actual assault landing.

The school provided the necessary equipment for the landing operation, gear, vehicles, tents and command post equipment. Experienced men from the school were assigned as instructors during the landing exercise so that the Reservists could learn the latest developments in the techniques of beach warfare. The Pacific Fleet's LCU Squadron One supplied LCU craft for the exercise.

Here's the timetable the Reservists followed when their Saturday morning D-Day arrived.

Early in the morning, members of the Division assemble at the amphibious base. Wearing full combat uniform, the Reservists board the waiting LCU and steam toward the "objective area"—Blue Beach on Silver Strand.

En route, they receive last-minute instructions on beach communications and are divided into five parties, each assigned to a separate beach sector.

0800: H-Hour. The LCU's bow grounds on the sands of Blue Beach, the ramp clangs down and the Reservists "invade" the beach.

Once ashore, each party proceeds to its assigned sector. The Reservists dig two-man foxholes for protection from the "enemy." Each sector is thoroughly scouted. Lateral communications are quickly established and a revetted command post, complete with charts of the beach area, is built.

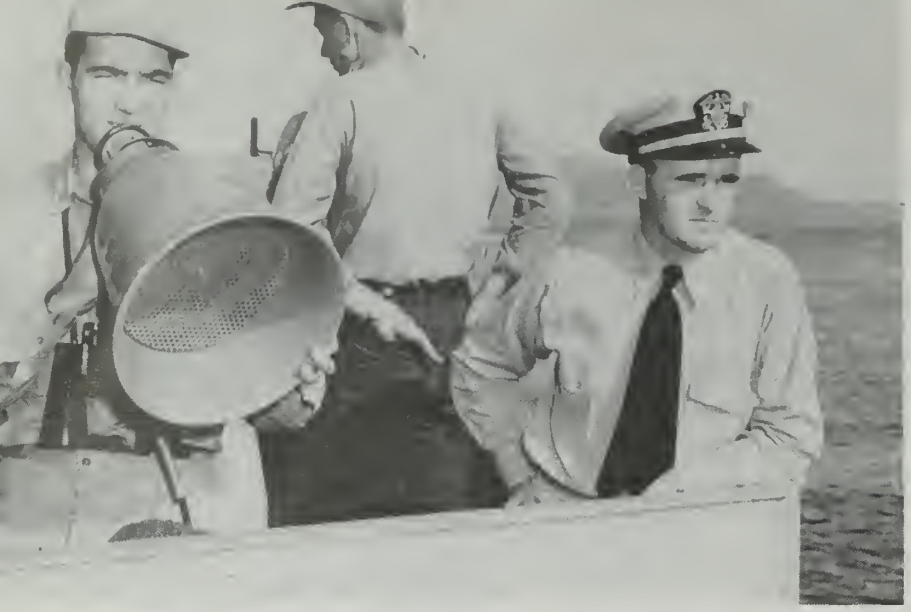
Evaluation teams, consisting of three officers each, circulate among the beach defenses. They check each evolution, give advice or guidance where necessary.

1130: All sector posts are completed and the evaluation teams inspect the area.

Meanwhile, all voice radio circuits are constantly manned, the operators drilled in proper techniques of voice radio procedure.

1300: Emphasis is switched to establishing a beach command post.

RESERVISTS construct two-man foxhole and *below*, hold critique in command post at Coronado maneuvers.



CONTROL LIAISON officer uses megaphone to direct Mike boats into shore with needed supplies. *Below:* Reserve beach groups study communications.

A command tent which doubles as a briefing shelter is erected.

1320: The trainees get instruction on beach communications and message procedure. Each Reservist has a chance to review each phase of the morning's operation. Mistakes are pointed out and methods for correcting them are discussed.

1430: Message drill. A simulated assault problem serves as the basis for more practice in voice radio procedure.

1520: Strike shelters, fill foxholes, police the area.

1545: Return to amphibious base.

1600: Secure.

Throughout the drill, "evaluators" inspect each phase of the operation, taking into consideration such factors as advance planning, general organization of men and gear and the resourcefulness and attitude of the Reservists taking part.

Once the drill is over, the evaluators review the exercise with the division's commanding officer. The drill is carefully analyzed and recommendations are made for improving future drills.

When the Reservists aren't taking part in a multiple drill involving a battle problem as shown above, they attend classroom lectures and receive practical instruction in the many phases of their operations.

They cover such topics as the purpose and construction of pontoon barges, use of pontoon causeways, building causeway piers, small craft salvage, amphibious withdrawals, the UDT unit, communications, logistics, beach and surf conditions, cold weather operations and the like.

Bivouacs on the beach are also scheduled so the Reservists can put into practice their knowledge of perimeter defense beach security, camouflage and concealment.

Training is not restricted to "hit the beach" procedures, however. One division recently scheduled a drill at a Marine Corps installation. Members received instruction in infantry weapons and their effect, including the machine guns, carbines and .45 caliber automatic pistol. They also worked in some training in booby traps and land mines.

Reservists of Division 11-1 are currently preparing for "Project Two"—their annual inspection which will be held in December. This won't be just a spit and polish inspection of men and equipment, however. The beachmasters are planning an elaborate sand table demonstration of an amphibious assault, putting into practical use the techniques they have learned during drills and on active duty for training.

It's easy to see that members of Naval Reserve Amphibious Beach Group Divisions are receiving top-notch training in both the theoretical and practical aspects of their specialty. The Regular Navy lends support in training exercises such as the multiple drill described above, helping to maintain this training on a high level.

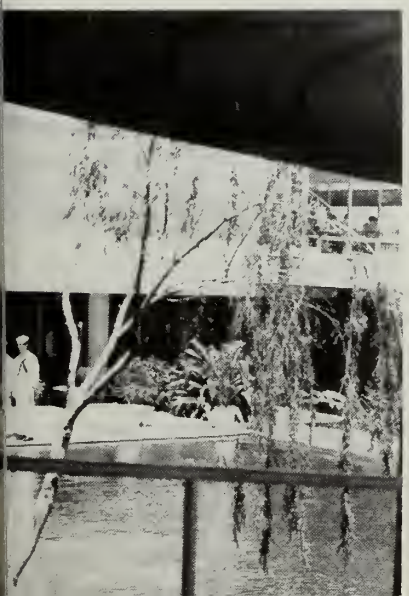
In the event of mobilization, these Reservists will be ready to join with Regulars as members of fully-manned Naval Beach Groups.

NORMANDY — Experience of World War II showed value of Amphibious Beach Groups in landing operations in the Pacific as well as in Europe.

Tropical Liberty

A FAVORITE VACATION and yachting spot for the fortunate and well-heeled tourist is the sunny clime of the Caribbean. For the Navyman with the Atlantic Fleet it is a familiar stamping ground where many ships head for a shakedown. So it was with the crew of USS *Arcadia* (AD 23). She headed south and all hands readied for a tropical liberty in the West Indies where they would visit Puerto Rico and the Dominican Republic.

Top Left: USS *Arcadia* (AD 23) sails past the well known landmark, El Morro Castle, as she enters the harbor at San Juan, Puerto Rico. *Top Right:* Men from the destroyer tender enjoy close-up look at the old castle. *Right:* Souvenirs are bargained for in the markets at Ciudad Trujillo during visit to Dominican Republic. *Lower Right:* Crewman from *Arcadia* visits cathedral in Ciudad Trujillo where the remains of Columbus are entombed. *Lower Center*: Liberty party passes through old stone gate on way to good times in the Republic's capital. *Lower left:* Navy tourists admire the pool at San Juan's modern airport.



MINUTE LADIES of DesFlot Four keep things shipshape on shore. *Below:* Wives leave *McCain* after meeting.

Navy's Minute Women

WHEN A NAVYMAN reports to a new ship it doesn't usually take long to find someone who'll shoot the breeze with him, swap watches or pick him up a few pairs of socks on a trip to small stores.

But, what about his wife? While he's at sea, where can she turn when she needs someone to watch her other children while she rushes a sick baby to the doctor or when she just wants to talk with another woman with whom she has something in common?

In her own home town there would be friends, long-time neighbors or relatives around to help her out when she needed a hand. But, if she's living in the home port of her husband's ship, it may take a while before she learns where assistance is available or knows any of her neighbors well enough to ask favors of them. As a result the going can get pretty tough, especially if she's only been a Navy wife for a short time and is just getting used to the idea of moving around and being left on her own.

This was one of the problems that Destroyer Flotilla Four at Norfolk, Va., set out to solve about a year ago, so it inaugurated a special program for destroyermen and their families. As part of this program the flotilla distributed booklets, full of handy information on the facilities and services available to Navy dependents in the Norfolk area, and set aside a special phone at flotilla headquarters so that members of the flotilla staff could be reached 24 hours a day by any DesFlot Four family needing emergency assistance.

These measures were important steps toward making it easier for Mrs. Destroyerman to get settled in Norfolk, and assisting her when something really serious came up. Still, they couldn't replace the kind of help she'd be able to get from friends and relatives back home.

To meet that need, RADM Laurence H. Frost, USN, then Commander DesFlot Four, suggested that the wives of flotilla personnel "institute at ship level an organization of ladies to assist new arrivals, the families of men at sea, or any dependent in need of assistance from any cause whatsoever."

Out of that suggestion there has grown the Minute Women, an informal organization which is creating among DesFlot Four families the same sort of friendly neighborliness that typifies an American small town. Through Minute Women activities confined to small groups built around individual ships, the wives of men who serve together are beginning to feel as though they're among old home-town friends. In

the process the Navy has lost much of the bigness that used to seem so bewildering, the wives are taking more pride in their husband's ships and they've gotten over feeling that they had to "go it alone" whenever their husbands were gone. Since their men are all in the same ship, the wives, regardless of husband's rank or rate, are more conscious that they're "all in the same boat" when that ship is at sea, and they're a lot less hesitant about asking each other for help when they need it.

What kind of help? Here are just a few samples:

• Mrs. X's husband was at sea in USS *John Hood* (DD 655). In the middle of the night she had to go to the hospital. The Minute Women of *Hood* not only got her there, but also took care of her two children until she was again able to handle the job herself.

• Mrs. Y's husband was at sea in

Meet Aboard

USS *Eugene A. Greene* (DDR 711), when one of her children hurt his arm in a nasty fall. Minute Women rallied 'round and hauled the pint-sized casualty to the dispensary while mother stayed home to take care of the rest of her family.

• A chief, about to be transferred from Newport, R. I., to USS *Sierra* (AD 18) wanted to find a house in Norfolk before he made the move. *Sierra's* Minute Women located one and the chief was able to bring his family along with him instead of leaving them behind while he looked for a place to live.

• A PO2 had just arrived in Norfolk with his family when his wife had a premature baby. Chiefs' wives from USS *John S. McCain* (DL 3) helped take care of the rest of the children in the family until the mother was back on her feet again.

• The wife of *McCain's* CO was taken to the hospital. Over the next two weeks Minute Women from that ship pitched in to take care of the skipper's children whenever he couldn't be home.

Besides dozens of cases like these, the Minute Women have performed countless everyday "good deeds" such as visiting destroyermen's wives, informing newly-arrived families of the services and facilities available to them in Norfolk and driving newcomers around town to help them locate housing.

Actually, it's hard to tell whether these things have been done by the Minute Women as groups, or simply by friends helping friends, for the Minute Women aren't just members of a do-gooders club. Social activities are also important, and through them the women have become acquainted and have formed the kind of friendships that make them want to help each other when help is needed. However, without the common meeting ground that the Minute Women have provided, many of these friends would still be strangers.

McCain's Minute Women are typical of those throughout DesFlot Four, and when the modern frigate moves to the Pacific they plan to carry the Minute Women spirit along with them to the West Coast. The only "officers" of the group are the four ladies on the steering committee—the wife of the CO, the wife of the ship's exec, the wife of a chief yeoman and the wife of a chief radioman. Any woman in the Norfolk area whose husband is serving in *McCain* automatically becomes a member. To make it easy to get in touch with each other socially or in an emergency, an up-to-date list of all the *McCain* families in the area is distributed every month, showing local addresses, phone numbers and the name of the husband, wife and children in each family.

The ladies of *McCain* meet once a month. In addition, they have gotten together at other times to plan (with the ship's recreation committee) a beach party for the entire ship, a special Mother's Day outing for *McCain* families and kitchenware parties to raise money for the decoration of an unused rocket storage compartment which *McCain* is converting into an EM rec room.

In preparation for the monthly meetings the steering committee sends out post cards to all the *McCain* wives to tell them what the meeting will be about and when and where it will be held. As *McCain* has been in the yard much of the time since the wives began to organize, the women have been able to hold all their meetings so far in the ship's wardroom. Minute Women of other ships usually meet in a member's home while a ship's at sea.

"Having a regular place to meet every time — and our husbands around to baby-sit for us—is probably why our Minute Women have been able to do so much more than those of other ships," says one of the *McCain* wives.

But the Minute Women of other

MEETINGS aboard ship give wives sense of belonging as well as latest info. *Above:* CO passes the word on ship's move. *Left:* Baby talk. *Rt:* Women talk.

IN ADDITION to lending a helping hand wives work with ship to plan social events. Here, children of crew members stand by for refreshment during party.

DesFlot Four ships are just as firmly convinced that their organizations and ships are the best in the Fleet. It's all part of a new pride and sense of belonging that the organization has created for the Navy wife who used to talk in terms of "my husband's ship," rather than "*our* ship."

The problem of finding baby-sitters so that the ladies can attend meetings has been solved by putting Papa to work. On the afternoon of a meeting husbands are allowed time off to go home and bring their wives and children to the ship or to stay home and watch the kids while the little woman attends. The most popular arrangement is to bring the children along to the ship and let Daddy take care of them on board.

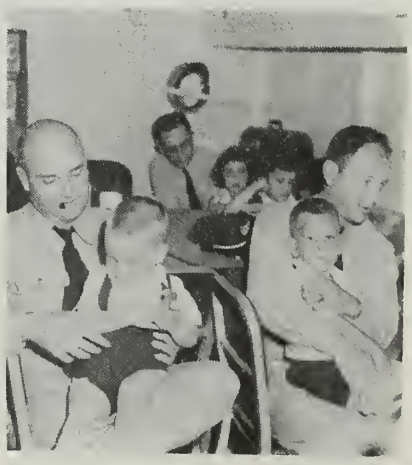
While the ladies are gathered in the wardroom, the CPO mess becomes a nursery, where each father tends to his own offspring. Movies, ice cream, cookies and punch, lemonade or milk for the youngsters add a gala touch to the occasion. If those don't quiet the determined toddler who still howls for Mama, Pop can take the little one on a guided tour of the ship.

The meetings themselves are more like neighborhood get-togethers than "meetings." There is no secretary to labor over the minutes and no treasurer to report on finances. The captain or exec usually tells the ladies what's on the ship's schedule for the coming month, and there may also be an informal talk on items of special interest to Navy wives.

For example, at one of *McCain's* meetings a representative of the Personal Affairs Division, BuPers, talked to the group about available means of transportation; travel, trailer and dislocation allowances; procedures for the shipment of automobiles and household goods; the housing and school situation in San Diego; and various other matters of interest to dependents in connection with the ship's move to the Pacific. Afterward, a lengthy question - and - answer period gave the ladies a chance to get accurate information on details pertaining to their own particular moving problems.

Through this and similar talks the wives have had an opportunity to learn more about the way Navy takes care of dependents than they ever knew before. One put it this way:

CPO LOUNGE becomes 'nursery' on meeting days as daddies baby-sit while wives meet in ship's wardroom.



"When my husband is home he's interested in his projects, or the newspaper or television, or fixing the youngster's toys. He's not interested in 'shop talk.' If I have a question that involves future planning he might give me an answer by repeating something he's heard second or third hand. Now, at our meetings, we hear about these things from the captain himself, or someone else who has accurate information, and it makes the Navy a lot easier to understand."

Arrangements are also made at the meetings for calls on any *McCain* dependents who have recently arrived in the area. The two wives who live nearest to the new family usually carry out this assignment. They welcome the new arrivals to *McCain*, present the new man's wife a copy of the flotilla's booklet about Norfolk and answer any questions the newcomer might have about stores, schools, churches, doctors, etc., in the neighborhood.

McCain's Minute Women are well prepared to assist each other during the west coast move. Wives who are going on ahead and know in advance where they will be staying, have given their phone numbers and addresses to the women who will come out later. Thus, the early arrivals will be available to help the later ones get settled.

Since they know they can count on each other, the wives feel a lot more secure about the cross-country trip. One expectant mother, who had planned to go home to have her baby, decided instead to make the move to San Diego—because she realized the Minute Women would see that she was well taken care of, even though her husband's ship might be thousands of miles away when the time came.

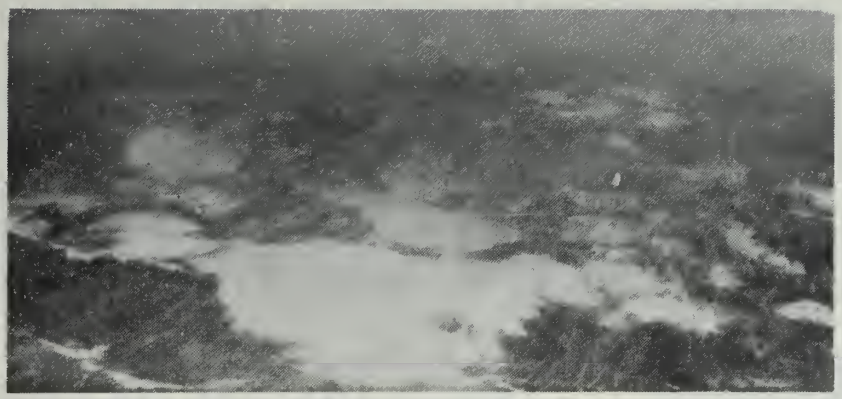
The husbands too are noticing the change the Minute Women have wrought. It's becoming almost a commonplace to hear a *McCain* wife say:

"My husband has been in five different ships since we've been married. But, neither of us has ever had this feeling about one before."

And as a veteran chief answered when he was asked what his wife thought of the Minute Women:

"She thinks they're really great. And, by golly, I'll tell you—my wife is the kind who's mighty hard to please about anything!"

—Gerald Wolff



NAVY HURRICANE Hunter's photo shows wind-swept sea in the storm's eye.

Keeping Tabs on the Lady Killers

When advanced units of the Navy's "Hurricane Hunters," Airborne Early Warning Squadron Four, were sent to Puerto Rico in June, it marked a decade of Navy participation with the Joint Hurricane Warning Service.

During the past 10 years of hurricane hunting, Navy planes have flown into hurricanes about 150 times.

P2V *Neptunes* and WV-3 *Constellations* are being used again this year to patrol the Caribbean and give advance warning of any tropical storm that may develop. The *Neptunes* are utilized for low-level flights and hurricane penetration while the *Constellations* are employed for higher altitude radar tracking and photography.

During the past year the Navy has been developing new devices which improve tracking and enable more advance warning of approaching storms. These include free-floating automatic meteorological stations that provide weather data by radio impulses when dropped into the sea in the path of a hurricane. "Hurricane rockets" have also been developed. They are equipped with cameras that photograph cloud formations when fired into the storm's "eye."

The Navy has a new apparatus for getting the goods on *Connie, Diane, Hazel* and the other "wicked ladies" who've been raising hob on the East Coast in recent years.

Dubbed the *Hurricoon*, the apparatus is simply a *Skyhook* plastic balloon equipped with a camera gondola. From an altitude of about 80,000 feet it will make a continuing, panoramic, picture story of a hurricane as part of a joint effort by the Navy, Air Force and Weather Bureau to learn more about these devastating storms.

In order to get over a hurricane the balloon will take advantage of a high-altitude wind reversal which occurs during the summer in middle latitudes. It will probably be released at the Naval Air Facility, Weeksville, N. C., rising to an altitude between 30,000 and 70,000 feet. From the coast it will drift out over the ocean until it reaches its "turn-around-point," where it will be directed by radio to ascend to 80,000 feet. At that height it will enter shoreward-moving air currents which will carry it back over the storm. When it reaches a satisfactory recovery point its flight will be terminated and its instruments will be parachuted to earth.

Hurricoon is rigged so that a 35-mm flight camera, dangling on wires below it, is focused on a large ball with a mirror-like surface. Once a minute, for 12 hours or more, the camera will photograph the reflection on the ball. Since the visual horizon at 80,000 feet is about 320 miles, the reflection will show an area of more than 300,000 square miles.

In addition to its radio equipment and the panoramic setup, the balloon will carry a second camera to make time-lapse pictures of cloud tops and a third to photograph the balloon's instruments. The instrument-panel shots, synchronized with the panoramic camera, will tell where the balloon was and how it was oriented for each of the panoramic photos.

Besides *Hurricoon*, the Navy will gather hurricane data with lower-altitude balloons, specially-instrumented buoys and picture-taking rockets that chase the lady killers.

HURRICOON — Skyhook balloons will carry gondola with cameras and instruments to record what blows.

NEW EQUIPMENT like WV-3 weather recon plane will get data to warn ships like the DDs pictured in blow.

D. White, PN1, USN

J. Imel, MU3, USN

J. D. Hicks, HM3, USN

L. Sharp, PN3, USN

All-Navy Talent

). McMeekin, YN1, USN

LT J. Bowers, USMC

R. Sparks, SA, USN

Richard (SH3) & Robert (SHSN) Featherston

R. Rodifer, AN, USN

LTJG S. Branam, NC, USN

A. Williams, PN3, USN

LTJG A. Wagner, USNR

A ZANY COMBO from the NAS Pensacola, Fla., band took top honors in the 1956 All-Navy Talent Contest held at the St. Albans Naval Hospital in New York. The foursome of Arnold Keebler, MU3, USN, Elmer North, MU2, USN, Herman Dean, MU2, USN, and John Amoni, MUSA, USN, literally rocked the house and rolled on the stage to take hop honors in the third annual sea-service talent show.

With a combination of drums, bass, sax and accordion, the four musicians gave out with some five minutes of hot jazz accompanied with just about every type of acrobatics possible—and they didn't miss a note. Had there been a trampolin or trapeze on the stage, the combo no doubt would have been swinging and jumping on those.

Runner-up honors were given to "The Echoes," a fine quartet from NAS Norfolk, Va., on their rendition of "Summer Kind of Love." The second place quartet included Stuart Taylor, PNSN, USN, Richard Sawyer, AN, USN, Donald Duckett, AA, USN, and Harvey Young, AN, USN.

Jack Imel, MU3, USN, of ComCruDesPac in *USS Dixie* (AD 14), set a precedent which may be hard to top as he again placed in the Navy Talent Contest. With his very talented and entertaining marimba playing and tap dance routine, Jack won third place. Last year, he tied for first place in the contest.

The personable Imel, who certainly is one of the Navy's more talented musicians, was also selected for the second year to appear in the All-Navy Talent Show televised nationally over the Ed Sullivan show.

The only other performer to repeat in both the All-Navy Contest and on the Sullivan show was Robert Rodifer, AN, USN, of NAS Jacksonville, Fla. The airman did a hilarious comedy pantomime to the tune of "Hard Hearted Hanna." The fact that the 45 rpm record was played at 78 rpm helped the act.

Another show stopper, both on the All-Navy and Ed Sullivan show, was the bit by Dick McMeekin, YN1, USN, from the Navy Recruiting Station in Jacksonville, Fla.

Kehr, MU3 & W. Rynkin, MUSN

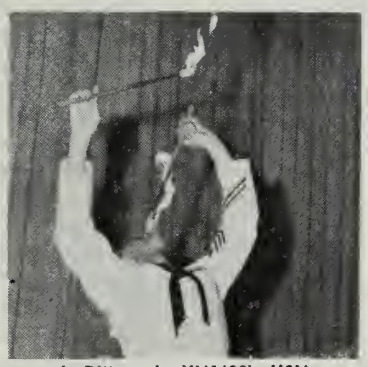
J. D. Anthony, AN, USN

W. Hahn, HM1, USN & Son

"The Continentals"

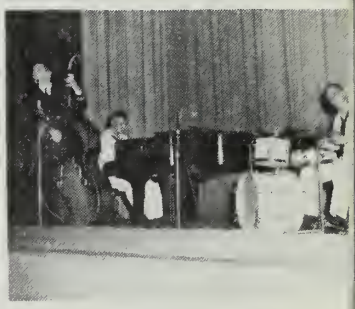
On Stage and TV

L. McCann, AM3, USN



J. Dillworth, YN1(SS), USN

W. Hayes, SA, USN



"The Flat Tops"

Mach W-1 H. Dundore, USN

P. Ryall, SN, USN

D. Conklin, AN, USN

"The Jumping Jacks"

McMeekin sang "Cecilia" both in his natural baritone voice and then in a true falsetto, which really floored everyone.

James Dillworth, YN1 (SS), USN, from *USS Hazelwood* (DD 531), revived an ancient art when he performed his sword and flame swallowing act. In addition to the flames and 18-inch swords, Dillworth also gulped an oversized screwdriver because, as he explained, someone once told him he had a screw loose.

Danny White, PN1, USN, of *USS Jupiter* (AVS 8), interspersing humor with good singing and guitar playing, was a big hit with the crowd.

White was really put to a test when he first came out to do his number. On his first stroke on the guitar, his pick seemed to disintegrate. But he held on gamely for a couple minutes until another pick could be brought out to him.

Besides All-Navy laurels, the 41 contestants were vying for spots on the Ed Sullivan show and the 30-day nation-wide tour produced and directed by the Bureau's Recruiting Service. Competition was very keen but quite friendly. The exchange of ideas and constructive comments between the contestants aided in making this talent show one of the finest ever staged by the Navy.

Selected for the Ed Sullivan Show were Patricia Ryall SA, USN; the "Jumping Jacks," a combo of Gerry Webb, SA, USN, and Marine CPL Jim Wallace, SGT Ray Moore, and CPL Don Kahn; LTJG Allan Wagner, USNR; Randy Sparks, SA, USN; McCann, AM3, USN; Danny White; LTJG Ted Forte, USNR; Robert Rodifer; LT Jim Bowers, USMC; Jack Imel; Dick McMeekin; William Hrynkiw, MU3, USN; the Marine quartet of CPL Joe Bruton, CPL Frank Church, PFC John Hushing, and SGT Lloyd Kyes; plus the winning All-Navy combo "The Continentals."

Those chosen to make the Navy Recruiting tour were Pat Ryall, Al Wagner, Randy Sparks, Danny White, Jack Imel, Harry Kehr, "The Continentals" Art Williams, SA, USN, LTJG Stella Branam, NC, USN, and Ensign Jane Johnson, USNR.

The recruiting show was a smash

Roster of Area Winners in All-Navy Talent Contest

Here are the contestants selected in the area eliminations to compete in the finals of the All-Navy Talent Contest this year:

ComOne—James Dillworth, YN1 (SS) USN. USS *Hazelwood* (DDS31)—Sword Swallower
ComThree—Harold Dundore, MACH, W-1, USN, USS *Tweedy* (DE S32)—Vocalist
LTJG Al Wagner, USNR, Third ND PIO—Comedian
LTJG Stella Branam, NC, USNR, St. Albans Naval Hospital—Rhythm and Blues
ComFour—Waylan Hahn, HM1, USN, District Medical Officer, Philadelphia—Vocalist
ComFive—Patricia Ryall, SA, USN, NTC Bainbridge, Md.—Soprano
Warren Hayes, SA, USN, NTC Bainbridge—Tenor vocalist
LTJG K. Friedline, USNR, RecSta Norfolk, Va.—"The Flat Tops" Instrumental trio
Charles Cochran, MUSN, USN, CinCLantFlt
Douglas A. Lewis, MU3, USN, CinCLantFlt
LTJG Ted Forte, USNR, Norfolk, Va.—Tenor vocalist
LT Jim Bowers, USMC, MCAAS Edendon, N. C.—Tenor vocalist
Stuart Taylor, PNSN, USN, ComAirLant—"The Echoes" Singing quartet
Richard Sawyer, AN, USN, NAS Norfolk
Donald Ducket, AA, USN, NAS Norfolk
Harvey Young, AN, USN, NAS Norfolk
ComSix—John D. Anthony, AN, USN, NATTC Memphis—Baritone vocalist
Dick McMeekin YN1, USN, NavCruSta, Jacksonville, Fla.—Comedy vocalist
Arnold Keebler, MU3, USN, NAS Pensacola, Fla.—"The Continentals" Instrumental combo
Elmer North, MU2, USN, NAS Pensacola, Fla.
Herman Dean, MU2, USN, NAS Pensacola, Fla.
John Amoni, MUSA, USN, NAS Pensacola, Fla.
Robert Rodifer, AN, USN, NAS Jacksonville, Fla.—Pantomime

ComEight—David Conklin, USN, NAAS Chase Field, Texas—Vocalist
ComNine—Harry E. Kehr, USN, NTC Great Lakes, Ill.—"The Sea Billies" Instrumental duo
William Hrynkiw, MU3, USN, NTC Great Lakes
ComEleven—Arthur Williams, PN3, USN, USS *Magoffin* (APA 199)—Vocalist
Randy Sparks, SA, USN, NTC San Diego—Folk singer
Jack Imel, MU3, USN, ComCruDesPac—Marimba and tap dance
ComTwelve—Jimmie D. Hicks, HM3, USN, USNH Oakland, Calif.—Pantomime
Richard Featherston, SH3, USN, USS *Bon Homme Richard* (CVA 31) Identical Twins
Robert Featherston, SHSN, USN, USS *Bon Homme Richard* (CVA 31) Tap routine

Leslie McCann, AM3, USN, NAS Moffett Field—Comedian-singer
ComThirteen—Lois Sharpe, PN3, USN, Com 13 Hdqtrs—Ballad singer
Tim Johnson, YNSN, USN, Com 13 Hdqtrs—Baritone
ComFourteen—Joseph Bruton, CPL, USMC, MCAS Kaneohe, T.H.—"The Four Bits" Singing quartet
Frank A. Church, CPL, USMC
John R. Hushing, PFC, USMC
Lloyd D. Kyes, CPL, USMC

ComNavFE—Jimmy Wallace, CPL, USMC, NAS Atsugi—"The Jumping Jacks" Combo
Garry Webb, AA, USN, VR-23
Ray Moore, SGT, USMC, H&MS 11
Donald Kuhn, CPL, USMC, MACS 1
Danny White, PN1, USN, USS *Jupiter* (AVS 8)—Vocalist-Guitar

hit in every city that it played. Conservative estimates are that the show played to a live audience of over 100,000 people plus the uncountable hundreds of thousands over local TV stations. The tour was no piece of cake for the Navy troupers, as they played one-night stands in 29 cities in 21 different states.

Also included in the recruiting tour were the accompanists selected from the Navy Band and Navy School of Music. In this group is leader Rick Larson, MUC, USN, and musicians Matt Hynes, Reys Gaglio, Ned Muffley, Charles Roop and R. Wilklow. — Rudy Garcia, JOC, USN

All-Navy Pistol Champs

Chief Machinist Offutt Pinion, USN, of NAS Atlantic City, N. J., won the individual All-Navy Pistol Championship for the third time as he took top honors in the 1956 matches held at NAS Norfolk, Va. The team championship was won by the pistol shooters representing the Pacific Fleet.

Pinion fired a score of 551x600 to annex his third All-Navy title and another Distinguished Pistol Shooter's badge. Pinion has previously won the All-Navy championship in 1949 and 1954.

Runner-up for the individual All-Navy title was Casper P. DeFino, TM2, USN, of FASRon 110 at NAS San Diego. DeFino finished up one point behind Pinion with a 550x600 score. M. E. Hendrix, ADC, USN, of NAS Pensacola had a score of 549x 600 to place third.

The winning All-Navy pistol team champions from the Pacific Fleet were V. H. Farr, GMC, USN, W. H. Mellon, AD1, USN, C. P. DeFino, TM2, USN, D. McCoy, AOC, USN, I. N. McKee, GMC, USN, and D. W. Sherman, GMC, USN.

Included among the ten high shooters in the individual competition were Bill Mellon, AD1, of NAS San Diego, Emmet D. King, AO1, or NAS Norfolk, D. McCoy, AOC, of NTC San Diego, Vic Farr, GMC, of NAS San Diego, C. L. Frazier, AOC, of NAS Patuxent River, Md., I. N. McKee, GMC, of NAS San Diego, J. H. Lucas, ADC, of FASRon Three at NAS Norfolk.

In addition to the top ten finishers in the All-Navy matches, A. C. Johns, ADC, USN, J. C. Ketzler, GM1, USN, and Commander R. C. Joerg, USN, team coach, remained at NAS Norfolk to practice for the National Pistol matches and possible places on the American Olympic Pistol team.

Three other type pistol matches were conducted during the All-Navy, although none of them counted toward the sea-service title. The matches, all fired over the National Match Course, are the type fired in the National Rifle Association competitions.

In the .22 caliber individual championship, Casper DeFino scored 291x300 to win the title. Bill Mellon was second with 289 and Emmett D. King was third with 288.

M. E. Hendrix, ADC, won the Center Fire Matches with a 277x 300 followed by Bill Mellon with 276 and John Lucas, ADC, with a 274 score. In the .45 caliber individual matches, Vic Farr took first with a 286x300 while John Lucas won second and Casper DeFino third. Both Lucas and DeFino chalked up identical scores of 281 but Lucas was given second because he had more shots in the V.

The Navy's top pistol shooters, along with the Navy rifle team competed in the NRA matches, which also served as the trials for the American Olympic pistol team.

Results of these matches will be published in a forthcoming issue of ALL HANDS Magazine.

Swimming and Diving

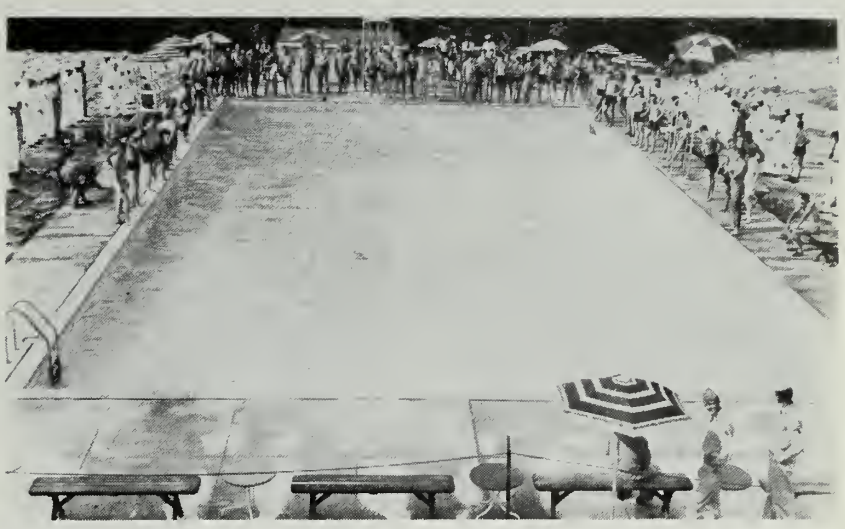
Reid Patterson, SN, USN, won a spot on the American Olympic Swimming Team. When he qualified by finishing third in the 100-meter freestyle event at the Olympic Trials in Detroit. Gerald Harrison, SA, USN, was picked as an alternate in the diving event. The trials saw more than 400 swimmers and divers competing for the 28 places on the team.

Patterson, had a 57.1 time in the qualifying heat but in the finals he had to settle for a 57.4 time and third place. Bill Woolsey of Hawaii won first in this event with a 57.0 time and Richard Hanley was second, a tenth of a second behind.

Gerry Harrison. former NCAA and AAU springboard diving champion, all but had a plane ticket to Australia, but then something went haywire. Although leading by a good margin, Harrison messed up his last two dives and could place no better than fourth. Harrison also finished fourth in the platform diving event.

A week before the Olympic Trials, the Navy swimming team had competed in the National AAU Outdoor Swimming Championships with Reid Patterson again showing the way. Patterson competed in his favorite 100-meter freestyle event and finished with a time of 56.6 but that was only good enough for second place as Richard Hanley set a new American record with a time of 56.3.

The Navy's 800-meter relay team of Dick Talbot, Don Evans, Ralph Darr and Patterson finished fourth out of 12 teams with a 9:08.4 time. In the 3-meter diving event, Harrison was fourth out of 39 competitors.



MINEMEN stand by to make a big splash in their new swimming pool at U.S. Naval Mine Depot, Yorktown, Va. The pool will be used by Navy and Marines.

The Navy team that competed in the AAU and Olympic Trials was selected from among the winners in the 1956 All-Navy Swimming and Diving Meet held at San Diego's Navy Field.

The record log was buffeted soundly, so far as pool records were concerned, by the times posted in the All-Navy meet. Schmelling of the Long Beach Naval Station shaved eight-tenths of a second off his 2:55.8 time in the 200-meter butterfly event and the 400-meter relay team of John Mayer, Ken Schmelling, Dick Jeffery and Reid Patterson cut one and three-tenths seconds from the old mark of 4:53.4.

Patterson also set a new pool record for the 100-meter freestyle as he covered the distance in 58 seconds flat. The old record of 58.8 was set in 1953 by NTC's Don Rosenthal.

Summary of 1956 All-Navy Swimming and Diving: (All competitors are from the Long Beach Naval Station unless otherwise indicated.)

3-meter diving — Gary Bagley, NAS San Diego, 454.2 points; Gerald Harrison, Pete Charlton.

1500-meter freestyle—Ralph Darr; Charles DeForrest; Newton Bowers. Time: 20:25.C.

400-meter individual medley — John Mayers; Kendall Schmelling; Charles DeForrest. Time: 6:01.9.

200-meter freestyle—Richard Talbot; Dick Evans; Jess Belton. Time: 2:14.5.

200-meter backstroke—Dick Jeffrey; Ron Raeta; 12th Naval District, Roger Dains, 12th Naval District. Time: 3:00.9.

100-meter backstroke — Robert Cowell, 12th Naval District; John Mayers; Jess Belton. Time: 1:12.7.

200-meter butterfly—Ken Schmelling; Ron Raeta, Com12; James Srpan, Com12. Time: 2:55.

800-meter freestyle relay (4-men) — Long Beach (Talbot, Black, Gambriel and Evans); 11th Naval District "B" team. No third place. Time: 10:03.8.

100-meter freestyle — Reid Patterson; Richard Talbot; Terry McGuire, San Diego. Time :58.0.

400-meter freestyle—Don Evans Ralph Darr; Richard Talbot. Time: 4:58.2.

400-meter medley relay (4-man)—Long Beach (Mayer, Jeffrey, Schmelling and Patterson); 12th Naval District. No third. Time: 4:52.1.

THREE TIME WINNER, Chief Machinist Offutt Pinion, USN, is again Navy's top 'gun slinger' as a result of his '56 All-Navy Individual pistol win.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Naval Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Application for Fleet Reserve

SIR: When a person has enough service to be transferred to the Fleet Reserve, how long does it generally take from the time you apply until you actually enter the Fleet Reserve?

Also, if a man's current enlistment is for four years and he's only completed two years of this obligation, can he pay back in cash the reenlistment bonus for the two years not served or does the Navy take it out of the man's retainer pay?—C. R. B., BM2, USN.

• *Applications for transfer to the Naval Fleet Reserve are processed as soon as they are received. However, when the application does not state a specific date, it is the practice of the Bureau to adjust the effective date of transfer to the Fleet Reserve in order to protect the applicant's best interests as follows:*

1. To provide a date for transfer to the Naval Fleet Reserve.

2. To provide a date for pay purposes.

3. To provide a date so as to entitle him to receive maximum monetary benefits.

4. To allow ample time for mailing and processing.

When an amount is due from an enlisted man because of overpayment of reenlistment bonus and is not covered in full upon his transfer to the Fleet Reserve through adjustment or other funds due him, the resulting overpayment may be liquidated by the member in cash. If such liquidation is not effected, the overpayment will be liquidated by deductions from his retainer pay—ED.

It's Final Multiple That Counts

SIR: I have heard that a PO1 with a very good record and recommendation will be advanced to CPO before one with a high final multiple. I had 125.50 on the last exam but was not rated. Did those who were authorized to be advanced have better recommendations or wasn't my mark high enough?—W.H.H., SD1, USN.

• *That is strictly scuttlebutt you have been hearing in regard to those having better recommendations being advanced before the PO1s having high final multiples. One must have a good record and must be recommended before he is permitted to take the examination. All personnel are advanced in strict accordance with their numerical standing on the final multiple listings for their particular rate.*

Your final multiple, although high, was not sufficient to warrant advancement within the limited quota applied to the SDCA rate. Better luck next time!—ED.

They Can Beat It

SIR: About your enlistment record challenge in the June ALL HANDS (Taffrail Talk, page 64) this probably will not be the record, but I know I can beat LCDR Hessley and his 17-year hitch. My first enlistment, as extended, terminated in 21 Nov 1937. On 22 Nov 1937, I commenced a four-year enlistment, which was extended for three years on 22 Nov 1941. Before the extension was terminated, I was commissioned as ensign on 15 Aug 1943. I still have the service record and CSC in my desk which show that I now have over 18½ years on that hitch.—LCDR Arnold S. Lott, USN.

SIR: I can't beat LCDR Hessley's record for a *first* enlistment, but I'd like to submit my record as a challenge: I enlisted 1 Aug 1928; discharged (EE) 21 Jan 1932; reenlisted 13 Oct 1936; extended (3) 13 Oct 1940. I was appointed Ship's Clerk 1 Oct 1943, with subsequent appointments (all temporary) to Chief Ship's Clerk, LTJG and LT. This means that, since 13 Oct 1936, I have been serving on a continuous enlistment which gives a total of 19 years and eight months.—LT. S. J. Stalter, USN.

SIR: You invite us to "Beat that if you can." I can and will. I shipped over on 1 Nov 1934 and extended the enlistment for four years in order to avail myself of flight training at Pensacola, Fla. I was issued a temporary commission as ensign in June 1942. I retired as lieutenant commander on 1 July, still serving under the enlisted contract executed on 1 Nov 1934. My enlisted status terminated upon retirement. This constitutes 21 years and eight months of service under one enlistment contract. Beat *that* if you can. —LCDR Donald M. Kelly.

• *You learn something new every day.*—ED.

Dependent Medicare

SIR: My wife, who is living with my parents while I am overseas, is a long way from any military medical facility. It became necessary for her to have an emergency appendectomy recently —just after we were presented with a bill for our child, also born in a civilian hospital. On the pay of a petty officer third class, I have a great deal of difficulty meeting expenses incident to the child, to say nothing of this latest bill.

Naturally, when I heard that the Navy would pay civilian hospital expenses for dependents, I thought it worthwhile to check into the matter. —B.H.F., MM3, USN.

• *What you've been hearing about is probably the Dependents Medical Care Act which recently became law, and which will cover situations such as yours (See* ALL HANDS, *September 1956, p. 52). However, that law does not become effective until about December 1956 and full procedures for applying its provisions have not yet been worked out.*

Present regulations include no circumstances in which appropriated funds of the Department of Defense may be used for civilian medical or hospital care or for the services of civilian physicians obtained by a dependent or by some other person on behalf of a dependent. Naturally, since the Department of Defense appropriates no funds for such a purpose, it is impossible for the Navy Department to pay your wife's expenses.

You may, however, request help from a designated representative of the Navy Relief Society or by writing a letter presenting full details of your problem to the Headquarters, Navy Relief Society, Room 1204, Main Navy Building, Navy Department, Washington 25, D. C. If they find sufficient merit in your case they may make you a loan without interest, an outright grant or a combination of the two.—ED.

Bonus and Commission

SIR: I recently reenlisted for six years and have since applied for a commission. If I am accepted for a commission will I have to pay back my reenlistment bonus? — W.R.K., ATC, USN.

• *If you receive the commission you applied for you* will not *have to pay back your reenlistment bonus. There are no regulations that require the recoupment of a reenlistment bonus upon the acceptance of a commission.*—ED.

Take It or Leave It

SIR: BuPers Inst. 1910.5B (paragraph 6c) says that "Personnel shall not be granted leave en route to separation."

Does this mean that a man en route from duty station overseas to a Receiving Station, CONUS, for discharge can take no leave, either on his way to the States or in the States before reporting to the Receiving Station?

If so, what happens to a man here on Taiwan (Formosa) who has 72 days' leave on the books and is approaching his discharge date? Must he lose all leave over 60 days, or could he be transferred to Japan or Hawaii in time to use up his extra leave there?—N. W. R., YN2, USN.

• *The instruction means what it says—no leave en route—no matter where it might be taken. To prevent just such cases, "BuPers Manual," Article C-6201 (4), stresses that leave should be taken annually as it accrues, whether in a foreign country or Stateside.*

Unless the man with the 12 extra days uses them up while still attached to his permanent duty station, he is out of luck, for the Navy would take a dim view of "transferring" him several thousand miles just so he could use up extra leave before he is ordered to the States.—ED.

'G' Billets and Crowded Rates

SIR: In a back issue of ALL HANDS (December 1955) I came across a chart comparing the Navy's personnel requirements in certain rates to the number of men the Navy has on board in those rates. Since mine is among the crowded rates I'd like to ask a few questions about your figures.

1. Is a permanent or acting CPO with a temporary commission still considered a CPO in the on-board totals?
2. Is a Reserve CPO on active duty—in the TAR program for instance—counted as filling a regular billet?
3. If a QMC is in an administrative billet (such as driver, dispatcher, police petty officer, shore patrol, etc.) is that billet included in the total number of QMC's the Navy needs? — G.W.A., GM1, USN.

• *Okay, here we go by the numbers.*

1. No, a temporary officer is not included in the on-board count for the enlisted rate in which he holds his acting or permanent appointment.

2. A Reserve CPO in the TAR program fills a designated TAR billet in allowances. Other than TARs, Reserve chiefs on active duty with the Regular Naval Establishment fill regular billets in the allowances.

3. Administrative (G) billets were developed to provide a better chance for stateside shore duty in those ratings which would otherwise experience unfavorable sea/shore rotation. These billets (MAA, security duties, shore patrol, etc.) can be filled by any competent petty officer regardless of his rating. Technical skill is not a requirement of the job. Under this system QMC billets have been set up at shore stations where there is no need for a QMC as such. The job could easily be filled by an MCC. Where these billets have been established, they count in the total requirements of the rating.—ED.

CREW OF USS *Francis M. Robinson* (DE 220) celebrates receiving third 'E' with paint brush and formation.

Correct Tie, Correct Salute

SIR: What is the knot used to tie the officer and CPO black "four-in-hand" necktie? I heard it was the four-in-hand knot, yet many officers and CPOs use the Windsor knot. Also, would you explain to a lot of people who insist on facing aft and saluting when coming aboard and leaving ship after sundown that such action is unnecessary unless, for some reason, the national ensign is left flying after sunset. — C.C.O., LTJG, USN.

• *"Navy Uniform Regulations does not specifically state what type of knot is to be used to tie the black four-in-hand necktie. The four-in-hand knot or the Windsor knot are both regulation.*

The reply to your second comment can be found on page 447 of "The Bluejackets' Manual" (1950) which states: "It was formerly custom and regulation ('U.S. Navy Regulations, 1920,' article 265) to salute the national ensign whenever you came upon the quarterdeck from any direction whatsoever. It was also the custom—and may continue to be so on certain ships—to face aft and salute when boarding or leaving ship, even if the ensign were not flying. These customs are not required by the new 'Navy Regulations' of 1948, but may be specified by the individual commanding officers."—ED.

Promotion, Retirement of WOs

SIR: On behalf of myself and several other chiefs I would like to learn the answers to these questions about promotion and retirement for WOs.

1. Can a permanent WO with less than 20 years' service revert to his last enlisted rate to finish out his 20 years if he fails to qualify for advancement, or is he forced to leave the Navy?
2. Is a temporary WO forced into retirement when he is passed over too often, or can he revert to enlisted status to finish his career?
3. Are examinations required for advancement from one WO grade to the next? What is the waiting period between advancements? — W. G., PRC, USN.

• *Here they are:*

1. If the man has between 18 and 20 years' service, he can be retained as a temporary WO until he is eligible to retire. If he's been in for less than 18 years his appointment is terminated, but he can, upon application and at the discretion of the Secretary of the Navy, be enlisted in such grade as the Secretary may direct. (See P. L. 379, 83rd Congress.)

2. A temporary WO, if eligible to retire, has the option of retiring or of reverting to his permanent enlisted status on that date which is sixty days after the date of his second failure. If he lacks less than two years of being eligible to retire, he will be retained on active duty in his present grade until he can retire. If he doesn't have 18 years of active service he will be reverted to permanent status on that date which is sixty days after the date of his second failure.

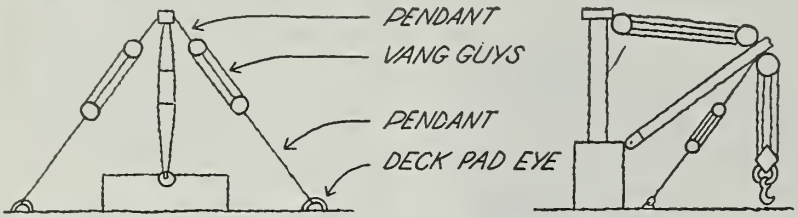
3. WO appointments are still being made by selection boards without a competitive examination. However, exams for all WO grades (and for all other permanent commissioned officers) are being established for future use in making appointments.

Time in grade for promotion of WOs is as follows: W-1 to W-2—three years; W-2 to W-3 six years; and W-3 to W-4 — 6 years. Complete info may be found in BuPers Inst. 1000.11.—ED.

Running or Standing Rigging?

SIR: We have a hot discussion going on among the deck gang of USS *Rankin* (AKA 103), as to whether or not vang pendants are considered part of the standing rigging or running rigging as far as control of the motion of the boom is concerned.

The glossary of the SEAMANSHIP manual (NavPers 16118-B), states "Rigging: generic term for the lines and/or wires which support a ship's mast(s), stack(s), yards, etc., (called standing rigging) and the lines, wires, and tackles which hoist, lower, and otherwise control the motion of her movable deck gear (called running rigging)."



Going by the above illustrations, could you tell us whether or not this pendant would be called standing or running rigging? Where the vang pendant is a support for the vang guys, couldn't they be considered standing rigging? Where the vang pendant does not have any movement while the vang guys are employed would they be considered running rigging?—R. F. A., BM1, USN.

• *Several different sources had to be checked to get a general definition for rigging, both running and standing, and the general definitions of a vang, a guy, and a shroud. By definition they are as follows:*

Standing riggings are lines or wires that support but ordinarily do not move. Clear cut examples of these are masts, stacks and shrouds.

Running riggings are lines, wires, etc., that move or control the motion of operating equipment. Examples of these are runners, topping lifts and guys.

Guys are lines used to steady or support a spar or boom. One source book defined it as consisting of wire pendants and two-folded manila purchases.

Now we get to the answer. Taking all the above data into consideration, it is very apparent that the rigging in your diagram (above) is running rigging. The section which you call "pendants" are movable in that the motion of the blocks moves the pendants toward or away from each other.—ED.

Education Under G.I. Bill

SIR: Upon the expiration of my current enlistment I will have three and-one-half years remaining before I complete 20 years of service.

As I interpret the G.I. Bill for veterans of the Korean conflict, one must begin the educational benefits offered by that bill within three years after discharge.

If such is the case, is there any way in which I can complete my 20 years of service without losing my educational benefits under the Korean G.I. Bill?—M.S.F., HMC, USN.

• *Your interpretation of the Korean G.I. Bill is correct. One must begin utilizing his educational rights within three years after discharge.*

It is suggested that you contact your personnel officer as to the possibility of extending your present enlistment so that you may still retain your eligibility for education under the G. I. Bill upon completion of 20 years' service. An eligible veteran must begin his education within three years after discharge and complete it within eight years or before 31 Jan 1965, which ever comes first.

Informal contact with the Veterans Administration reveals that their General Counsel ruled that an extension of enlistment does not constitute a discharge from active naval service. Therefore, educational and training benefits for personnel in this category need not commence until three years after unconditional discharge issued at the end of the extension period.—ED.

Eligibility for Class 'A' School

SIR: Can a man who has been dropped from a Class "A" Service School be assigned to another Class "A" School during the same hitch? Would a man in the above situation be eligible for duty under instruction for HM?—C.D.W., SN, USN.

• *You are eligible for entry into a Class "A" School 18 months after having been dropped from a Class "A" School. This requirement can be waived for sufficient reason if requested from the Chief of Naval Personnel.*

As for your second question, the answer is also affirmative. After 18 months have passed since being dropped from a Class "A" School, you may apply for Hospital Corps school. Also, you may be assigned to a dispensary for duty under instruction and then, if qualified, may apply for HM School.—ED.

Rights of Fleet Reservists

SIR: What are the privileges of a Fleet Reserve ex-temporary officer when he retires in a commissioned officer status?—C.F.McC., SKC, USN.

• *You are eligible for all rights, privileges and benefits accorded to other retired personnel. Briefly, these include medical care for you and your dependents, commissary and exchange privileges (where facilities permit). In addition, if you are retired in a pay status, you and your dependents are eligible to travel on MSTS on space-available basis. Travel on naval aircraft is for yourself only, on a space-available basis.*

A guide book for Retired and Fleet Reserve personnel is now being mailed to all retired members and Fleet Reservists. If you do not receive your copy by October, you may obtain one by writing to the Chief of Naval Personnel (Attn: Pers G224).—ED.

Guadelupe Has Slick Record

SIR: I served in USS *Guadalupe* (AO 32) from 5 Nov 1951 to 20 Aug 1952. Did *Guadalupe* earn the Korean Presidential Unit Citation for this period?—C.W.T., LT, SC, USN.

• Guadalupe *did earn the Korean Presidential Unit Citation and you're entitled to wear the KPUC ribbon. Although your tour in* Guadalupe *was short, it must have been interesting. During the nine months you were on board,* Guadalupe *is credited with serving from 29 Nov 1951 to 19 Apr 1952 and from 18 Aug 1952 to 29 Apr 1953 as part of the Seventh Fleet which received the actual citation. AO 32 also served another tour (1 Dec 1950—1 Apr 1951) with the Seventh Fleet before you reported aboard.*

Incidentally, you may be interested to know that Guadalupe *also has an outstanding WW II record. Before the shooting had even started she was preparing for exciting days ahead. In August 1941 she transported, along with a full cargo of oil, three MTBs of the now famous motor torpedo boat squadron of Medal of Honor winner LT John D. Bulkeley, (now CAPT)* USN, *from New York to Manila. Bulkeley and members of his staff also were aboard as passengers.*

One month after the war began, the fleet oiler was engaged in task force operations in the Coral Sea, at a time when fueling-at-sea was still in its infancy and all lines had to be manhandled. In May '42, Guadalupe *became one of the first of the converted Maritime Commission hulls to be equipped with winches and other fueling-at-sea gear.*

By war's end, USS Guadalupe *had earned 12 battle stars for service in the Asiatic-Pacific area. In addition, the 552-foot oiler had earned the Navy Occupation Medal and China Service Medal. Quite a ship!*—ED.

Computing Retired Pay

SIR: I am a LCDR, but because of a combat commendation, I'll be retiring as a CDR. Can you tell me just how my retirement pay will be figured?—F. J. L., LCDR, USN.

• *Although being retired with the rank of CDR, your retirement pay will be based on that of a LCDR. It will be computed at 2½ per cent of your base pay at the time of retirement, multiplied by the number of years on which your active duty pay was computed.*

For example, if you had 26 years' service, your base pay was $592.80 per month. Two and one-half per cent of that equals $14.82. You then multiply the $14.82 by the number of years for which your active duty pay was computed. Using 26 years as an example, your retirement pay would be $385.32 per month. "And that's not chicken feed!"—ED.

Recruit Procurement School

SIR: After successfully completing the Navy Recruit Procurement School in San Diego in October 1949, I served a normal tour of recruiting duty which ended in 1952. If, upon fulfilling my sea duty requirements, I request and am ordered to another normal tour of recruiting duty, will it be necessary for me to attend the school again?—L. R. W., QMC, USN.

• *In a word, no.*—ED.

Type Lice Again

SIR: How is it that a GMC can get his name on the Shore Duty Eligibility List without having the required 48 months' minimum sea duty? There were two examples in the May issue of ALL HANDS which indicate that it is possible.

One case is in the Ninth Naval District where the number one man on the list has only 21 month's sea duty; the other is in the 12th Naval District where the top man on the list has only 22 months' sea duty. How come? — R. G. B., GMC, USN.

• *It's not possible, chief, for a GMC to have less than 48 months' sea duty and get on the SDEL. But it is possible for our proofreaders to overlook a figure. What you saw was a typographical error. The number of months sea duty for the GMC first on the SDEL for the Ninth Naval District should have read 84 months and (hold your hat for this one) the number of months' sea duty for the GMC on the list for the 12th Naval District should have read 228 months—and he's still waiting for his shore duty orders!*—ED.

Per Diem

SIR: I was transferred from my ship to a normal tour of shore duty at NAF, Weeksville, N. C. I left the ship in January and with leave, travel and proceed time combined, reported to my new duty station with my family in mid-March. I'm now awaiting housing (housing is very limited).

What I should like to know is this: Am I entitled to any per diem?— A. J. DeL., MEC, USN.

• *"Joint Travel Regulations" authorizes payment of per diem allowance only when a member is in a travel status away from his permanent duty station incident to travel, temporary duty, or temporary additional duty and specifically prohibits payment of per diem while at the permanent duty station. Accordingly, you are not entitled to per diem for the duty at your permanent station. The housing situation is not a factor in the determination of per diem allowance entitlement.*

If your question relates to the travel from overseas to Weeksville, you are not authorized to collect per diem for travel aboard a government vessel. Further, since your letter indicates that your travel from San Francisco to Weeksville was at personal expense for which mileage is payable, you are not entitled to a per diem allowance.—ED.

Mystery of Missing Beans Is Solved

SIR: In Taffrail Talk of your May issue there is a statement to the effect that the Navy feeds a ton-and-half of strawberries to every ton of beans.

If we've had more strawberries than beans they must have been wearing disguises, because here on *USS Robert H. McCard* (DD 822) we have had beans, it seems for every meal—well, every day anyways. If your article was intended for civilian consumption, why didn't you send it to some woman's magazine?

We know how many strawberries we've eaten (average — once a month), so if your article is true, how about seeing that some of those berries are channeled our way instead of letting someone along the line make a big hog of himself?

Maybe you should get some new proofreaders.—The ET Gang, *USS McCard.*

• *Heavens to Captain Queeg! So you're the ones who've been getting all our beans!*

We hereby fire a 21-bean salute to the unsung heroes of McCard, *who eat all the Navy's beans so that other ships might have more strawberries. Your self-sacrificing, uncomplaining, day-to-day courage in the face of overwhelming pods is an inspiration to all of us. Now we can brave the dangers of strawberry rash and gout with our heads a little higher, our hives a little redder and our shortcake a little shorter because of the fine example you've set.*

We've consulted a very reliable authority (actually it was just a dictionary, but we usually say things that way to make them sound more impressive) and have come up with a bit of information that should help to cheer your dreary lot, to wit: "Beans are highly nutritious, being very rich in protein."

On the other hand, the strawberry is not even a true berry, "but an enlarged pulpy receptacle, bearing numerous seedlike achenes." Thus, you're getting a wonderful opportunity to stock up on valuable protein, while the rest of us are getting so full of seedlike achenes they're coming out our ears. And if you've ever had an ear achene you know how painful that can be.

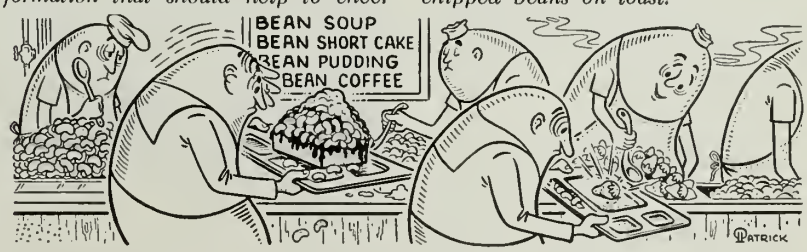
In addition to their nutritional value beans have another important use. If you'll save them up for a few days and take them to your Special Services officer, he'll probably be delighted to make a set of regulation beanbags for you and to arrange for your team to compete against teams from other ships. Who knows? With all the protein you've been getting, you may go on to the coveted All-Navy beanbag title, and by the next Olympics you might be competing against top-name beanbaggers from all over the world.

Good luck.—ED.

P. S.—Be sure to use raw beans in your beanbags, as the cooked ones tend to become soggy and slow down your game.—THE PROOFREADERS.

P. P. S.—Our statistics on the ton-and-a-half of strawberries and the ton of beans came from a press pack put out by USS Wasp *(CVA 18) on her return to San Diego, Calif., from the Far East in April. Where she got the figures (or the strawberries) we don't know, but if Navymen gambled, we'd be willing to bet on your beanbag team against hers anytime.*

Incidentally, have you ever tried chipped beans on toast?



Brothers Serving Together

SIR: I have a GCT of 56 and an ARI of 62. What are my chances of getting Class A AT School?

If I cannot get school, would it be possible for me to get duty with my brother who is stationed at Jacksonville, Fla?—G.F.L., SN, USN.

• *We don't know exactly what your chances of getting school are as assignment, in your case, would be made by ComServPac. However, you must change your rate to AN before you can be assigned to AT school. Why don't you check with your personnel officer and submit a request, via the chain of command, for a change to AN and subsequent course of instruction at Class A AT School.*

As far as duty with your brother goes, the policy and requirements are outlined in "BuPers Manual," Article 5209(2) and BuPers Inst. 1306.33. According to these references you may get duty with your brother providing that:

(a) You make a request for such duty to the Chief of Naval Personnel.

(b) The command where your brother is serving has an allowance for your rate and a need for your services.

(c) At the time you request assignment with your brother, you are normally and routinely available for reassignment. Good luck!—ED.

Pulled Ashore in Style

SIR: Ever since I read the letter in your April 1955 issue about Admiral Lord Louis Mountbatten, Royal Navy, being pulled ashore by six admirals, I've been trying to locate some pictures I had of a similar incident in the U. S. Navy, but so far I've had no success.

Even so, in 1936, Admiral Joseph M. Reeves, on being relieved as Commander in Chief, U. S. Fleet, was pulled ashore at Long Beach, California, in the racing cutter of the old *Pennsylvania* (BB 38). There were no admirals in his crew. There were a couple of captains and commanders (all officers from his staff), and I might add, they didn't "lay on their oars" either.—C. E. A., BMC, USN.

SIR: About a year ago ALL HANDS ran a letter telling of an English admiral being "pulled" ashore, and you stated that there are no records of any U. S. admiral ever having being honored in this manner.

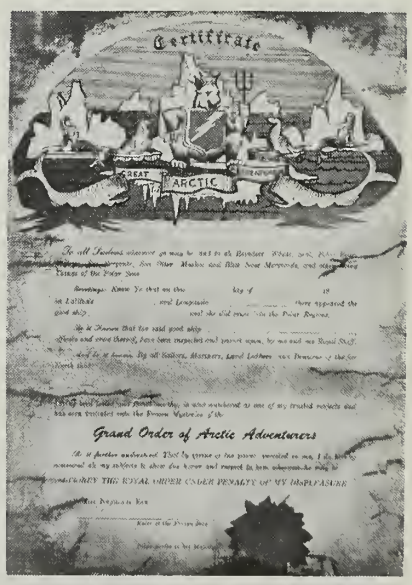
Although his oarsmen were not of flag rank, Admiral Clarence Stewart Williams was accorded this honor in the spring of 1928 (I think) at Shanghai, China. Admiral Williams, on board USS *Pittsburgh*, was relieved by Admiral M. L. Bristol, and at the conclusion of the ceremony he was pulled ashore in a double-banked whaleboat by senior officers of the ship and staff.—C. H. S., QMC, USN.

• *Thanks very much for your interesting sidelights on one of the more heartwarming customs—unfortunately one that is fast dying in today's mechanized navies. The record shows that both of the men mentioned as receiving this signal honor had turned in distinguished careers.*

Admiral Williams, during 47 years of active duty, saw service in such ships as USS Hartford, Monongahela, Ossipee, Constellation, Charleston *and the survey schooner* Eager. *During the Spanish American War he commanded* USS Gwin *and, in* 1900, *while attached to* USS Iroquois, *he assisted in the survey of Midway Island. He also served in such old-time men-o'-war as* USS Massachusetts, Iowa, Albany *and* Rhode Island *before winding up his career on board* Pittsburgh *as Commander-in-Chief, Asiatic Fleet.*

Admiral Williams' shore duty included such billets as instructor at the Naval Academy; member of the Board of Inspection and Survey; Chief of Staff—and later President—of the Naval War College, Newport; and member of the General Board and the Army and Navy Joint Board.

The naval career of Admiral Reeves was equally distinguished, although it nearly came to an abrupt end in 1909 *because ADM Reeves (then a lieutenant commander) could not pass the walking test suggested by President Theodore Roosevelt. LCDR Reeves fell short* 10 *miles of the prescribed* 50-*mile hike, but a Retirement Board reconsidered his dismissal.*



DEW LINE supply jobs qualify many Navymen for 'frosty' orders such as Blue Nose and Arctic Adventures.

Sixty Days Carryover

SIR: Would you please clear up a misunderstanding for us by answering the following hypothetical question: A man is about to reenlist under provisions of BuPers Inst. 1133.4 and *BuPers Manual*, Art. C-10306(1)(e), and he understands that he will not collect lump sum payment for unused earned leave. This person, at date of discharge, will have 73 days unused earned leave. I maintain that in accordance with *BuPers Manual, Art.* C-6105 (5), the man is entitled to carry the entire 73 days' earned unused leave over into his new enlistment. The article states in part that "personnel not entitled to cash settlement shall have unused leave carried over into a new enlistment."

Another YN maintains that the provisions of *BuPers Manual*, Art C-6105(1), apply in the above case. This article states "The amount of earned leave shall not exceed 60 days on the first day of each fiscal year or upon discharge or separation from active duty." Who is right?—W.W.L., YN1, USN.

• *Sorry mate, but you're wrong. Regardless of the authority under which a man is separated and reenlists, he cannot carry over more than 60 days' leave credit into his new enlistment. The article cited by your friend applies in this case.*—ED

In the years following this near-fatal "field trip," Admiral Reeves commanded such ships as USS Oregon, Maine, Kansas, North Dakota, Langley *and* Pennsylvania. *He served as naval attache in the American Embassy at Rome; as naval member at the Limitation of Arms Conference in Geneva; as Commander Battleships, Battle Force, U .S. Fleet; as Commander Battle Force, U. S. Fleet and as Commander-in-Chief, U. S. Fleet.*

Officially retired on 1 *Dec* 1936 *immediately following a tour of duty as Chairman of the General Board, he returned to active duty on* 21 *May* 1940 *for service in the Office of the Secretary of the Navy. The admiral remained on active duty throughout World War II, first as a member of the President's five-man board to investigate the attack on Pearl Harbor; then as Navy's Lend-Lease Liaison Officer, as Senior Military Member of the Munitions Assignments Board, as Chairman of the Munitions Assignment Committee (Navy) and on the Joint Munitions Allocation Committee.*

Admiral Reeves was again relieved of all active duty on 23 *Dec* 1946. *His death, on* 25 *Mar* 1948, *was followed by interment in the cemetery at the Naval Academy, Annapolis.*—ED.

5"/38s with Rammers

SIR: Would you please settle an argument for a bunch of guys on board USS *Montrose* (APA 212)? It concerns the make and operation of a 5"/38. Did USS *Ralph Talbot* (DD 390) have five-inch guns which were rammed by the gun captain? I was a member of the gun crew of such a five-incher and as I remember, the gun had two levers aft where the gun captain could drop his spade and also ram the gun himself, instead of the first loader doing the ramming. Some of my shipmates don't believe there was such a gun.—J.L.M., BM2, USN.

• *The destroyer* Talbot *did have early 5"/38 singles equipped with Vickers rammers. On these rammers both the shell guard release lever and the rammer operating lever were mounted on the rear of the slide and operated by the gun captain. These mounts are now obsolete.*

Your present-day ships have 5" mount Mark 37 with Northern Pump rammers. On all Northern Pump rammers, the rammer operating lever is located forward above the breech and is operated by the shell man. The shell guard release lever is mounted aft and is operated by the gun captain. All 5"/38 singles have this arrangement.—ED.

Chief Comes First

SIR: Recently, at this naval activity, four CPOs attained permanent appointment. While typing their certificates, for presentation at the commanding officer's personnel inspection, I was informed that their rate and rating, when spelled out, should read, rating first, rate second—that is—"Boatswain's Mate *Chief*."

I contend, and I cite Art. C-2102 of *BuPers Manual* to support my contention, that it should read, "*Chief* Boatswain's Mate." I believe it should also be spoken this way. Would you please tell me which is correct?—B.M.L., MM1, USN.

• *You're right.*

On his permanent appointment certificate a CPO's rating should be written "Chief Boatswain's Mate," and NOT *"Boatswain's Mate Chief." The reference in this case is the one you gave —Art. C-2102 of "BuPers Manual".* —ED.

Back Porch Duty?

SIR: I am seeking information on rehabilitation shore duty for men who are within a few months of transferring to the Fleet Reserve on "19 and six." Some of the guys here say they have heard of men being assigned shore duty near their home for the last six months of active service, but others claim there is no such thing.—L. O. D., BM1, USN.

• *There is no such policy in effect for personnel transferring to the Fleet Reserve. Approval of such requests from personnel scheduled for transfer to inactive status in the Fleet Reserve would result in prohibitive overmanning of naval activities in certain areas such as San Diego, Long Beach, Jacksonville and many others. However, personnel completing 30 years of continuous active duty, may after their retirement date is officially established, request assignment to a specific area for their last six months of active duty and normally the Chief of Naval Personnel will effect reassignment in accordance with their desires.*—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• USS *Bataan* (CVL 29) — The seventh annual reunion will be held in Dobbs Ferry, N. Y., on 13 October. For further information, contact D. F. Scaperotta, 207 Ashford Avenue, Dobbs Ferry, N. Y.

• *Medical Department Officers*—A reunion of all Medical Department officers who were on duty in the National Naval Medical Center during World War II will be held 10 and 11 November at the Officers Club, National Naval Medical Center, Bethesda, Md. Further information may be obtained from LCDR Grace B. Lally, NC, USN (Ret.), 4002 Redden Road, Drexel Hill, Pa.

• USS *Saratoga* (CV 3) — The fifth annual reunion will be held at the Lafayette Hotel, Long Beach, Calif., on 27 October. For more details, write to Harold Koch, 3210 Clark Avenue, Long Beach 8, Calif.

• USS *Hammann* (DD 412) — Former crew members who are interested in holding a reunion, with time and place to be decided by mutual consent, contact Harold D. De Mello, 178 Sycamore St., New Bedford, Mass.

• USS *Tulagi* (CVE 72) — The second reunion is tentatively planned for July 1957, at Coronado, Calif. Write to Dr. F. A. Holden, Medical Arts Building, Baltimore 1, Md., for further details.

• USS *Willmarth* (DE 638) — All former shipmates who are interested in holding a reunion, with time and place to be decided by mutual consent, write to Keith M. Gale, 4010 39th St. Place, Des Moines 10, Iowa.

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How Your Ship Developed Its Figure

ON THE FOLLOWING PAGES is a brief pictorial history depicting the "changing shapes in ships" of the U. S. Navy. The pictures point up the evolutionary development of a Navy that began in 1775 and today, 181 years later, continues to unfold with the end nowhere in sight.

When the 13 colonies declared their independence the youthful nation found itself at war with a country that was acknowledged as the No. 1 sea power, while the U. S. had no Navy at all. The Thirteen Colonies took immediate steps to rectify this, and in an early move they established a Naval Committee which had the task of forming a Navy. This naval force was to be organized, built and recruited during wartime, and it ran into tremendous obstacles. It was George Washington, in desperate need of supplies for his army, who was responsible for fitting our country's first warship. This was the fishing schooner *Hannah* which he commissioned on 2 Sep 1775 and immediately dispatched to intercept and capture British merchantmen operating off the New England coast. Thus, the United States Navy had its start in "Washington's Fleet."

It didn't take long for the Navy to get organized and into action. New ships began to appear almost daily. Among the first: *Alfred,* (See p. 32) with 24-guns. She had the distinction of being the U. S. Navy's first flagship and is said to be the first U. S. naval vessel on which the "Flag of Freedom" was hoisted (by John Paul Jones).

Bonhomme Richard battles Serapis

During the Revolutionary War and on up to the Civil War, naval vessels were grouped into three major classes. They were:

- *Sloops-of-War.* These were small sailing warships carrying 10 to 20 guns on one deck only.
- *Frigates.* The cruisers of their day, these were next in size. They rated from 28 to 44 guns which were mounted on the spar and gun deck immediately below.
- *Ships-of-the-Line.* The battleships of the sailing days. Largest of all sailing warships, they were equipped with 74 or more guns of various sizes. Two or more gun decks located below the spar deck were their distinguishing feature.

Although these were the main classifications of ships of our early Navy and foreign navies, a somewhat different class or "object" appeared and made an early contribution to the changing shape of ships. It was none other than Bushnell's *Turtle,* our first submarine. A crude contraption, made of oak, *Turtle* was propelled by a large horizontal screw that was turned by a hand crank. Although not successful, it made history. *Turtle* is claimed to be the first submarine ever to make a wartime attack.

Little did anyone realize in 1776, when Bushnell was building *Turtle* at Saybrook, Conn., that this weird new weapon would be the forerunner of the world's first nuclear-powered submarine, *Nautilus.* It was to be built 170 years later just 30 miles away.

Another part of the fighting Navy was the privateer, actually a mechantman converted to do battle with the enemy. These privateers were no match for Britain's men-of-war but they took their toll of the British merchant fleet. Some 50-odd American warships (historical sources differ on the actual number) saw service in the Continental Navy during the seven-year Revolutionary War. They included 29 frigates and 27 sloops-of-war.

With the establishment of a new Federal Government the infant U. S. Navy went into eclipse. By war's end in 1783 the Navy was down to five ships. These five remaining ships were disbanded shortly thereafter, with the frigate *Alliance,* the last of them, being sold in 1785.

It didn't take too long, however, before the needs for a Navy were realized, since America's small merchant fleet was being molested in the high seas. In 1794, a Navy-conscious Congress authorized the construction of six frigates. They were to be of a new design—long and strong. They possessed a combination of fire power and speed unequalled in their class. One of these was *Constitution,* (See p. 32) completed in 1798 and still afloat today. Rated a 44-gunner, she was capable of making 13½ knots. *Constitution* was 175 feet long, displaced 1576 tons and her mainmast towered 180 feet above her decks.

Said to be the early Navy's greatest ship, *Constitution* fulfilled the thoughts and dreams of President John Adams who did so much in the role of forming the U. S. Navy. It was under Adams in 1798 that the Navy Department was established and the organization of today's Navy began to take shape. One of the first jobs of the newly formed U. S. Navy was that of fighting an undeclared war with France. During this "war," our small Navy came through again. It took 85 French ships.

The Tripolitan War and War of 1812 saw bigger ships coming into the Navy. Typical was our first "battleship," the 74-gun *North Carolina* (See p. 32). Shortly after the War of 1812, the Navy launched *Demologos.* She was our first warship to use steam and was later rechristened *Fulton* in honor of the builder of America's first steamboat.

Many old-time Navymen, however, could not picture steam-powered machinery replacing wind and canvas. Even after she proved herself practical, *Fulton* was later equipped with sails by leaders of the old school and was not very active during her short career.

The Navy continued to expand its sailing fleet. From 1815 to 1840, more 74-gun ships-of-the-line were built. The keels of these battleships, called "liners," were laid during the War of 1812 but were not completed until some years later. In 1837 the Navy added the 3104-ton *Pennsylvania,* largest of America's ships-of-the-line. By that time the American merchant fleet had some 700 steam-powered vessels and many of the problems involving steam propulsion were being solved. In 1841 the Navy launched USS *Mississippi,* our first ocean-going steam-driven capital ship.

Through the efforts of far-seeing men like Commander Matthew Calbraith Perry, USN, the Navy was becoming more steam-conscious. Perry, who is referred to as the "Father of the Steam Navy," had been enthusiastic about the possibilities of steam while in charge of construction and in command of the Navy's second steam frigate *Fulton II.* Steam was now hailed as the most important naval development since the cannon.

While advances with steam were slow, the Navy had been making other strides. It began making its ships with iron instead of wooden hulls. In 1843, the Navy's first iron hulled warship, the paddle sloop *Michigan* (See p. 33) was launched. This side-wheeler was 165 feet long. It displaced 685 tons, had a barkentine rig and was powered by a 170-horsepower, two-cylinder steam engine. Without using her sails, *Michigan* was capable of making eight knots.

Wooden hulls were also on the way out. In 1848, *Vermont* was launched as our last wooden battleship.

The Civil War brought many fantastic ships to our rapidly changing Navy. Both Union and Confederate Navies were engaged in frantic shipbuilding programs. It brought the era of ironclads into full swing. With it came such sights as *Merrimac* and *Monitor* (which also supported a turret). Also appearing on the scene were riverboats, rams, gunboats—and even submarines made their appearance again.

USS Forrestal (CVA 59) passes through Hampton Roads

Probably more changes and advances were made in ship designs during the four years of the Civil War (1861-65) than during any one period or during the combined total of years since our Navy had its start in 1775.

After the Civil War the Navy again went down hill. A year and a half after the war, the total number of Navy ships was 236, of which just 56 were in active squadron service. By 1881, the Navy did not have a single armored ship left.

Conditions throughout the world, however, made the country somewhat aware of the Navy's state. In 1883, Congress once again came to the Navy's rescue by authorizing construction of the "protected cruisers" *Atlanta, Boston, Chicago,* and the dispatch boat *Dolphin,* (See p. 34). Their appearance heralded the changes in the shapes of ships and inaugurated a "new Navy"—a steel-hulled Navy which brought to an end the ironclads instroduced only 40 years earlier. These new cruisers were in the 19-knot class. They sported new guns, new types of turrets and armor.

With German threats in the Pacific and an uneasy Spanish Empire, public interest was revived and the Navy once again began to regain strength. Continued changes were marked as the new steel Navy took on new shapes. Such was the case when *Newark,* a 4098-ton protected cruiser, was the last of the Navy's warships to be fitted with sails.

With the perfection of the torpedo, long-range torpedo boats such as *Cushing* (See p. 35) made their debut. The Navy acquired 16 fast torpedo boats and three 185-tonners capable of speeds of 27 knots.

These torpedo boats gave rise to another change in the shape of ships, a torpedo boat destroyer, such as *Truxtun.* This new class of ships led to our present-day destroyers. They were designed to combat torpedo boats and, by a process of evolution, destroyers themselves began carrying torpedoes. For a time destroyers were used solely to deliver torpedo attacks. With the development of the submarine, they became submarine hunters and during the years took on numerous roles. Construction of our first destroyers, 275-ton vessels, began in 1892. They proved so successful that destroyer-building on a large scale began. From 1892 to 1914, the start of World War I, some 240 destroyers had been built.

By 1893 the heavy elements of the U. S. Fleet consisted of 15 light steel cruisers, the heavy armored cruiser *New York* and *Maine* and *Texas,* both listed as second class battleships. (See p. 35.)

At the turn of the century, the Navy acquired *Holland,* its first successful submarine, named in honor of John P. Holland, its builder. Within three years after *Holland,* seven more underseas craft (120-tonners) had joined the Navy. Submarines took hold fast and by 1911, 20 subs of 400 tons each were in our newly established "Silent Service."

While the submarine was being developed our surface Navy didn't go unnoticed. New inventions, improved training, and long-range guns resulted in the development of new dreadnaughts. In 1906 the U. S. launched a large battleship building program. From this, nine new classes of BBs appeared. They ranged from 518-foot 20,000-tonners with 12-inch guns of

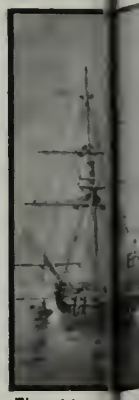
(Continued on page 40)

CHANGING SHAPES OF SHIPS

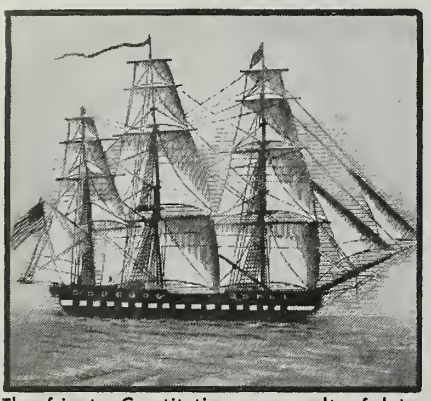
Schooner *Honnoh*, 1775, wos the first ship fitted out in George Woshington's Fleet.

Americo's first flogship, 24-gun *Alfred*, was first ship to fly colors of new notion.

Colonists' hopes soiled with the tiny 12-gun sloop *Providence*.



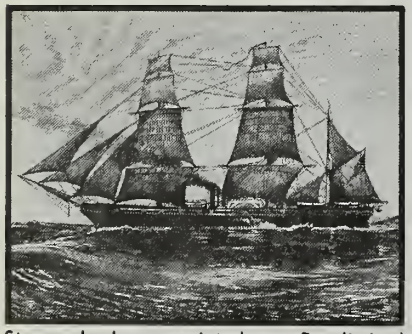
The 16-gu o convert



The frigote *Constitution* was result of lote 1790's revivol of interest in o strong Novy.

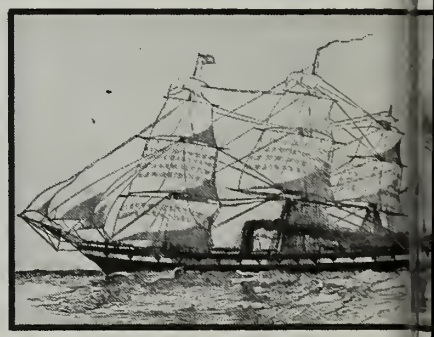
North Corolino, 74-gun ship-of-the-line, the true oncestor of the bottleship, hod on owesome punch.

The 1799 schooner *Enterprise*, modeled fast clipper ships, fought Tripoliton pi

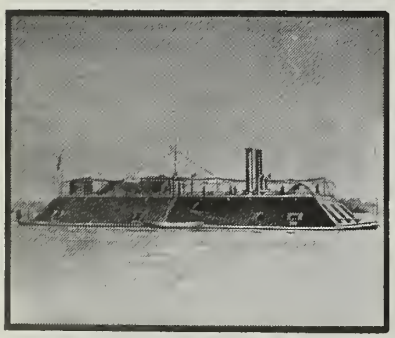


Steom, slowly opprecioted, was first limited to sturdy side-wheelers like *Powhotan*.

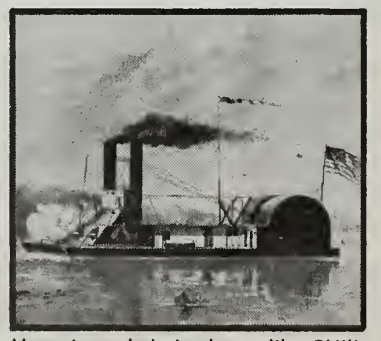
Fronklin of 1860 wos o 10-knot frigote thot struck o compromise between steom ond foding soil.



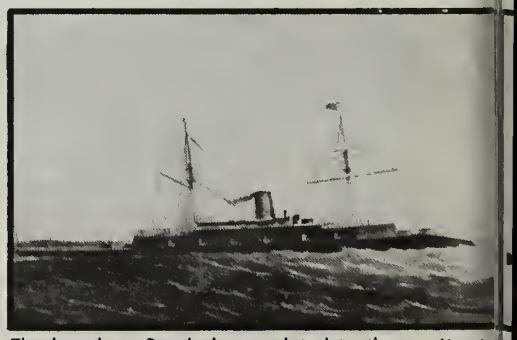
The lorge corvette or sloop-of-wor *Brookly* o full-rigged ship of fomous *Hortford*



Voriotions on the monitor theme were Civil Wor's contributions. Here: *Essex*.



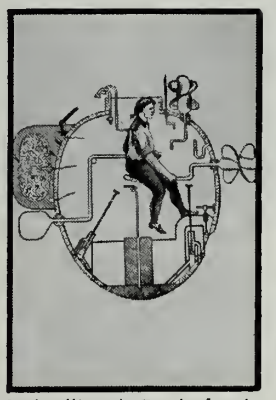
Mony iron clod riverboots like *Chillicothe* were used in the Civil Wor.



The low-slung *Dunderberg*, reloted to the monitor ty wos clod in iron ond designed to operote os o

THE U. S. NAVY, 1775-1956

ingtan, antman.



Bushnell's sub *Turtle* faught in the Revalutianary War.

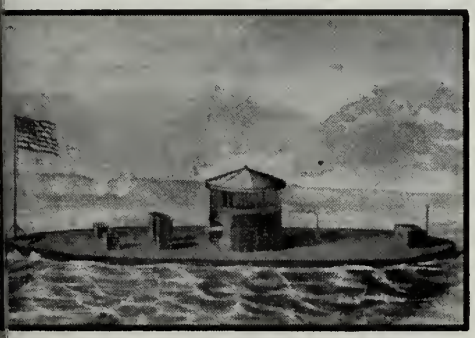
The 12-gun slaap, *Enterprise*, helped Benedict Arnald deter the British an Lake Champlain.

Gift fram the French, *Ban Hamme Richard*, was old East Indiaman. It beat *Serapis* in 1779.

ltan, 1814 frigate, was first S. Navy warship ta use steam.

Campramise between sail and steam was ta last far many years. Abave: an early partial canversian.

Abaut 20 years before *Manitar*, the U. S. acquired its first iran ship, side-wheeler *Michigan*.



il War *Manitar*, immartal, ungainly "cheese bax a raft," rang up curtain an era af iranclads.

When traaps and supplies had ta be maved by sea, ships like graceful steam transpart *Eagle* did jab.

The 1862 *New Iransides* had finest armar yet, ance survived 70 hits.

laval architects warked the manitar cancept o death. *Dictatar's* keel was laid in '62.

A "first," Cushing's tarpeda launch carried its bamb an spar.

Launched in 1865, the U. S. frigate *Tennessee* was amang last af steam-sail ships ta be retired.

(cantinued an next page)

Interest lagged after War, yet *Amphitrite*, ordered in '74, was ultimate in monitors.

Navy's new look began to emerge in 1883 with despatch boat *Dolphin*.

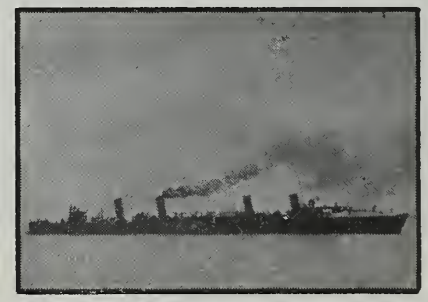
"New Navy" appeared with the protected cruisers li *Boston*, later a member of Dewey's Asiatic squadro

Flagship of Dewey, the best "protected cruiser" of her day, was *Olympia* (1895).

Strange experiments were tried and one of the strangest was 1896 ram *Katahdin*.

First class battleship *Oregon* of 1896, which compare with best in existence, gave Navy a new maturit

Smaller than foreign battleships, fearsome *Alabama*, launched in 1898, was said to be "finest ship in the world."



Ancestor of modern DDs, fae of torpedo boats, was torpedo boat destroyer *Truxtun*.

The torpedo boat was a good weap and *Bagley* marked its developme

Harbinger of tin-can of today, USS *Flusser* was a new high in destroyer progress.

The submarine had caught on and the U. S. produced such as *Seal*.

The dreadnought *Delaware* was the sixth ship named, served with famous Division Nine in WW

The light cruiser *Omaha*, laid down in 1918, was capable of speeds in excess of thirty-four knots.

Menace of enemy mines was beaten by minesweepers like *Mallard*.

Rechristened *Leviathan*, the giant ex-German liner *Vat land* carried 12,000 soldiers on each trip to Euro

he experimentol dynamite gun-
oat *Vesuvius* joined Fleet in 1890.

Pride of 1898 "mosquito fleet," gunboat *Concord*.

Cushing, the 22.5-knot torpedo boat, entered service in 1890.

Texas, first and smallest battlewagon of "New Navy," was a huge advance over monitors.

e 1896 *Brooklyn*, even larger than battleship
xas, represented second phase of "New Navy."

Expressly designed to serve on China's shallow, high-banked rivers, was gunboat *Wilmington*.

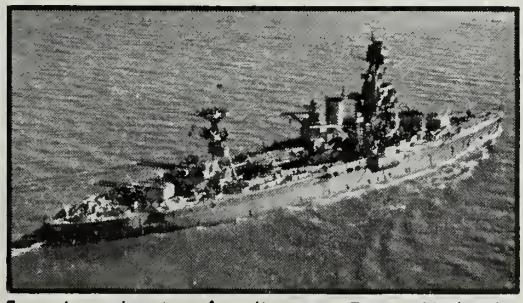
Swift torpedo boat *Porter*, commissioned in 1897, served in Spanish-American War.

rst *Solace*, floating hospital that
s to spell life for hundreds.

Sleek, potent *Colorado* of 1903 was battleship-size armored cruiser, which served in Atlantic as *Pueblo* in WW I.

The 1890s produced the U. S.'s first practicable submorine torpedo boat, *Hollond*.

the year 1911 Eugene Ely
nded on battleship *Pennsylvania*.



Four times the size of earlier 1895 *Texas*, this battleship *Texas* was one of the proudest ships in WW I.

Camouflaged *Wadsworth* was flagship of first destroyer flatilla to enter conflict.

e midget 110' subchasers
ruck back at the U-boats.

In the minelaying blockade, Allies used on assortment of ships. Shown is *Black Hawk*.

Christened *Narwhal*, this sub served through World War I.

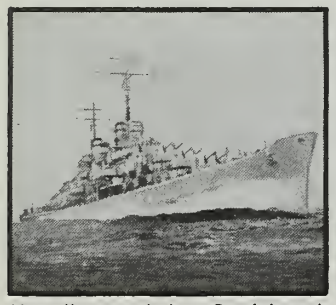
Ford-built Eagle boats drastically cut life expectancy of enemy subs.

(continued on next page)

Cammissioned in 1921, the battleship *California* escaped Pearl Harbar to fight heraically in Warld War II.

First seaplane tender arrived in year 1921 with USS *Wright*, which carried 12 planes.

Anather "first" in 1922, *Langley*, anc collier, naw U. S.'s first aircraft carr



Martally waunded at Guadalcanal, the light cruiser *Atlanta*, 1941.

Aptly named "masquita baat" was an ald cancept revived.

Secand *Salace* was typical of the ships that brought waunded hame.

Oilers like *Neches* (2nd af t name) kept fuel lifeline flowi

Eldorada, amphib farce flagship was new concept, kept secret far years.

Amang first af America's new *Baltimare* class heavy cruisers, USS *Bastan* faught all over South Pacific.

The light aircraft carriers proved invaluable in Pacific; abave: USS *Cowpens*, cammissioned in 19

Ta keep the guns firing, ammunitian ship USS *Wrangell* crisscrassed the Pacific.

Jaining the Fleet in the fall af '44, *Missouri* was the latest battleship that appeared in war.

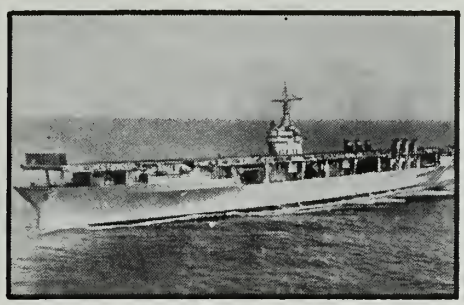
The attack carga ship *Sheliak* helped ta fe the insatiable appetite af the fighting far

The antiaircraft cruiser, *Tucson*, 1945, taak part in the Navy's bombardment af Japan.

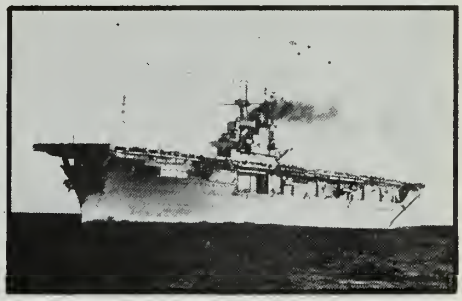
Importance af radar brought conversian af destroyer *Higbee* to radar picket in 1946.

Amang largest of landing ships, carryi all manner of vehicles, was LSV *Monta*

Descendent of frigate was the cruiser type *Louisville*, among the finest of early thirties.



Langley was a success; in 1934 U. S. launched *Ranger*, first ship designed as a carrier.



Commissioned 1940, sunk 1942, deadly USS *Wasp* had a short but busy life in the early war.

Converted to a craneship (AB 1), antique ex-*Kearsarge* saw WWII service.

Net layer, odd ship with a unique mission.

Built in 1916, *Shawmut* was drafted into war service as a minelayer in 1942.

Landing ship genus was huge. *Belle Grove* was an LSD.

Against the threat of mines ent motor minesweepers.

Destroyer *Evans* lived through enemy 150-plane attack off Okinawa in 1945.

Sleek destroyer escorts, like *John C. Butler*, were thorns in Nippon's side.

Destroyer tender *Piedmont* was mother hen to its deadly brood.

Carrying troops and landing craft to the war nes was the job of APAs like *Magoffin*.

Carriers were constantly improved. Most modern in WW II were of *Essex* class. Here: *Tarawa*, 1945.

Ships were built "for every purpose." *Currituck* was seaplane tender.

Minesweepers were needed badly. *Redart* was built for this delicate task.

Workhorses of assault forces, LSTs (landing ship, tank) were essence of versatility.

Buglike LCVP saw much action.

Floating drydock, rest home for battle-scarred ships.

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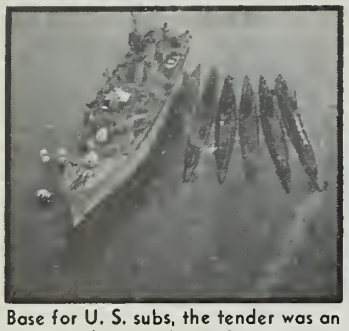


Base for U. S. subs, the tender was an unsung hero of undersea war.

Submarine USS *Barb* took high toll of enemy shipping in WWII patrols.

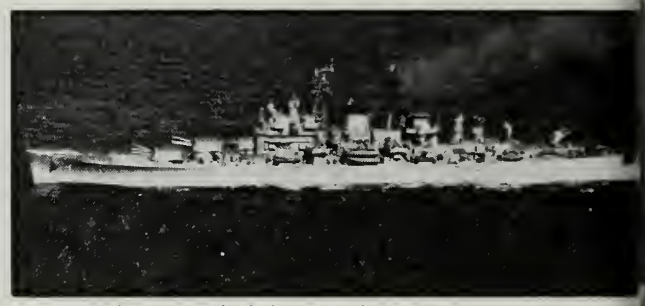
LSMs were laden with rockets and converted to deadly LSMRs.

One hero of the Korean confli was the fleet ocean tug Mocto

World War II had proved the value of cruisers, able workhorses of the Fleet. Completed in 1948, the light cruiser USS *Roanoke*.

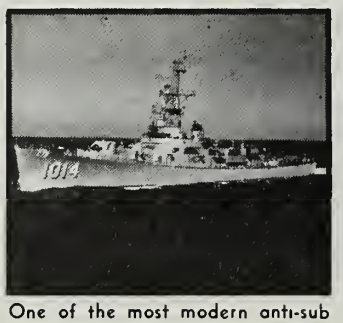
All lessons taught by WW II were incorporated in America's fc postwar heavy cruisers. Here: the 13,700-ton, 33-knot *Rochest*

Weighing 4,000 tons more than *Rochester*, the heavy cruiser *Newport News*, veteran of Korean fighting, and sister ships are world's heaviest.

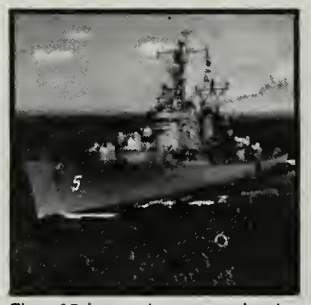


Boston, built in 1943, had the enviable distinction in 1955 of becan ing the first cruiser to be converted for guided missile us

Above the main deck the entire structure of destroyer *John Paul Jones* is aluminum.



One of the most modern anti-sub ships, the escort vessel *Cromwell*.



The 35-knot destroyer leader *Wilkinson* was completed in '54.

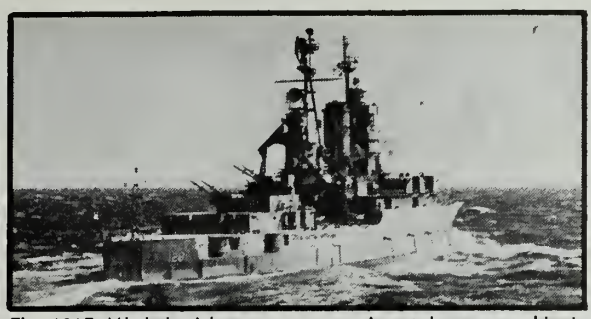
Wooden, nonmagnetic coa tal minesweeper *Cormorar*

Recently designed to supplant LSMRs, the inshore fire support ship *Carronade*.

New type of sub: the guided missile sub *Carbonero*, since reclassified SS.

First of the most modern class of aircra carriers, 1,039-foot-long *Forrestal* incorporat

bmarine rescue vessel *Chanti-* eer (ASR) was specially equipped.



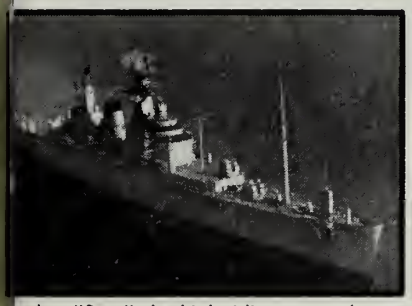
The 1917 *Mississippi* became an experimental gunnery ship in 1947. Racket and missile launchers replaced the aft 14" turret.

Ex-DE *Knudsan*, converted ta fast transpart (APD), was alsa amphibiaus cantral flagship.

unched in 1951, hunter-killer sub ses new threat ta an enemy.

The Fleet acquired an extra set af ears when *Spinax* became a radar picket.

Attack carga ships praved themselves invaluable. One af the latest and best af these is *Tulare*.



ather "first," the high-riding tactical cam- nd ship *Narthamptan* bristles with radar.

High speed *Albacare* is experimental submarine with new "tear drap" hull.

Once a liberty ship, *Skywatcher* was transfarmed inta an acean radar statian ship (YAGR).

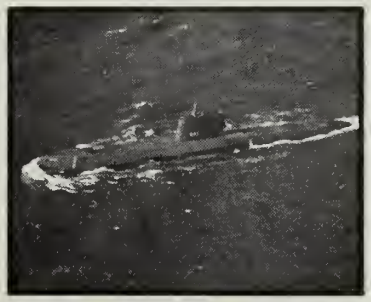
ple cancept, the angled deck, changed car- design. Shawn: *Antietam* after canversian.

Big brother ta the *Carmarant*, the non-magnetic acean minesweeper USS *Enhance*.

Built ta supply task farces at sea, the general stores issue ship USS *Vega*, midacean supermarket.

latest develapments in flattaps, handles nes capable af carrying the atamic bamb.

Very add ship with a big name, the drane aircraft catapult cantral craft, YV-1.

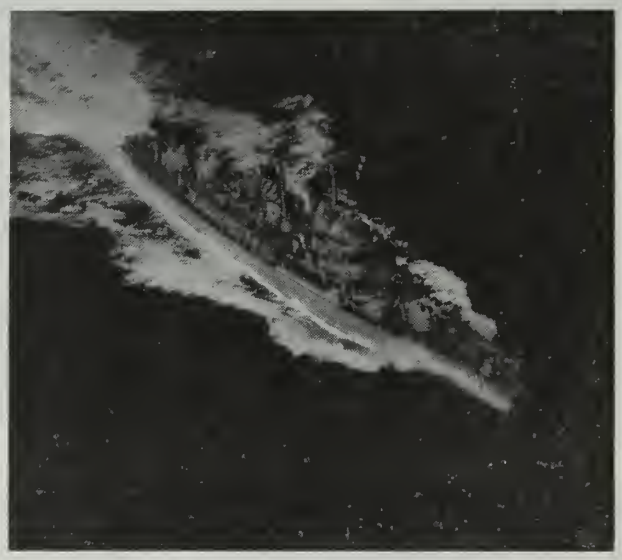


A glimpse af the Navy's fantastic future, the 1955 atamic sub *Nautilus*.

(Continued from page 31)

Delaware class on up to 624-foot 32,600-ton wagons of the *Florida* class. Of these, five ships of the *California* (See p. 36) and *Colorado* classes were not completed until after World War I, (1921-23), and many new improvements, based on lessons learned from wartime experiences, were incorporated into their design. Battleships of the *Colorado* class were our first to be equipped with 16-inch guns.

Meanwhile, the aviation age had arrived (see the special issue of ALL HANDS, March 1956) and the Navy immediately began experimenting with the new flying machine. In November 1910 Eugene Ely made a daring take-off from a 57-foot platform rigged on the cruiser *Birmingham*. About 60 days later he accomplished another unusual feat. He made the first shipboard landing on a platform mounted on *Pennsylvania* (See. p. 35).



USS Forrest Sherman (DD931) cuts through sea.

With the entry of the U. S. into World War I, the Navy's Ship-building efforts were concentrated on destroyers, patrol craft, minelayers and minesweepers like *Wadsworth* and *Mallard* as shown on page 35. These types of warships were in urgent demand.

At the end of World War I, the U. S. resumed a capital shipbuilding program which had been interrupted by the conflict. Wartime experience had proved the value of the airplane, and the Navy immediately took steps to build its first aircraft carrier. This was accomplished in 1922 when the collier *Langley* was converted. Five years later, two more carriers, *Lexington* and *Saratoga,* were made from battle cruiser hulls.

Not too many changes were made in the shape of ships during the 20's. The Washington Naval Armament Conference restricted the size of the navies of the world and no new ships were authorized for a number of years. In 1930, changes in the shape of Navy ships once again began to appear.

With the success of *Langley, Lexington* and *Saratoga,* the U. S. built the aircraft carrier *Ranger.* She was the Navy's first ship to be built as an aircraft carrier. New cruisers, like *Louisville* (See p. 37) were built during the early 30's.

At the time of the Japanese attack on Pearl Harbor, the U. S. Navy had 343 combatant ships in commission and 344 more in the building ways. In the Spring of 1942, three battleships of the *South Dakota* class were commissioned. New names continued to appear and thousands of changes in the shapes of ships were made in the early war years. Such odd-shaped new-comers as landing ship docks (like *Belle Grove* on p. 37), net layers, PT boats, improved Fleet-type subs, cruisers, destroyers, and auxiliaries of every description and for every type of mission were joining the Fleet daily.

During early stages of WW II our ship losses were high. From 7 Dec 1941 to 31 Dec 1943, the U. S. Navy lost 141 vessels. In spite of these losses, naval ship strength doubled during 1943 as our shipbuilding efforts reached an all-time high. Our combatant ships at that time numbered more than 838. In 1943 alone, two 45,000-ton battleships, 65 aircraft carriers, 11 cruisers, 128 destroyers, 306 destroyer escorts and 56 submarines were added to the Fleet. This does not include the countless auxiliaries and yard craft.

The importance of air power and the pattern of widespread oceanic war brought about the building of a Fleet unlike any in history. It consisted of a swift, compact striking force, having the advantages of speed, mobility and surprise, yet possessing the fire power and protective armor to stand and slug it out with enemy forces. Such a Fleet was made up of ships like *Tarawa, Missouri, Tucson, Higbee,* and *Barb* (to name a few).

In the five-year period ending in late 1944, 9,000,000 tons or 65,000 vessels had been added to the U. S. Navy. One of the most novel developments among these many new ships were the large assortment of landing ships that appeared in the early stages of the war.

Possibly the most versatile of the many new types of ships built during World War II were the destroyer escorts, now called escort vessels.

Attack cargoes, transports, barracks ships, net tenders, all types of repair ships, radar pickets, minelayers and minesweepers, as well as many other types of ships too numerous to mention changed the shape of the U. S. Navy almost overnight.

When Japan surrendered, the U. S. Navy had emerged as the strongest navy in the world.

The changing shape of ships has continued with even greater momentum in the past decade, with the New Navy on the threshold of still another new era. This is the era of nuclear propulsion, of jet power, rockets and guided missiles.

Along with the types of ships that have proved themselves in the past there have emerged such categories as guided missile cruisers, tactical command ships, helicopter flattops, ASW support aircraft carriers, radar picket destroyers and submarines, and inshore fire support ships.

In the forefront are the great new attack aircraft carriers like USS *Forrestal* (CVA 59) and USS *Saratoga* (CVA 60) and the potent underseas fleet such as USS *Albacore* (AG SS 569) and the nuclear-powered *Nautilus* (SS(N) 571) and *Seawolf* (SS(N) 575).

These are just a sample of the shape of ships to come in the Navy of Tomorrow.

H. George Baker, JO1, USN

TODAY'S NAVY

WHAT MAKES A NAVYMAN reenlist was chief topic of discussion for these POs and 138 others who met at Bainbridge for Career Appraisal Symposium.

Getting the Word, on Ship's TV

Getting the word now means getting the picture, too, in USS *Lexington* (CVA 16).

Like most of the Navy's modernized carriers, *Lexington* has a closed circuit TV hookup, primarily for monitoring flight operations. However, when her skipper, CAPT. A. S Heyward Jr., USN, wanted to tell all hands why "Lex" was going to the Far East, he decided television would be an ideal way to pass the word.

He had already given the officers, chiefs and senior POs an informal personal talk on the ship's redeployment, but the rest of the crew is so large that a personal talk wouldn't be very "personal." Therefore, the skipper delivered a talk for the rest of the men in the first successful telecast over all the TV sets aboard.

The experiment worked out so well that television now promises to become an important means of keeping the crew informed, as well as entertained.

Parachutes for Bad Weather

A landing deceleration parachute, designed to help reduce rollout of the Navy's largest carrier-based bomber, the A3D *Skywarrior*, is now being fitted to all production A3D aircraft. Installation of the chutes resulted after extensive testing.

The 70,000-pound twin-jet bomber has low-speed landing characteristics and a nonskid braking system that will normally stop it in a short distance.

However, addition of the deceleration chute, which measures two feet in diameter, will assure safe landings on wet runways, during instrument landings made under GCA conditions, or emergency landings made with high gross weight. The system is designed for normal touchdown speed of 150 knots and an emergency speed of 170 knots.

The deceleration parachute is for landing conditions on land only and is not intended for shipboard use.

The A3D, a long-range, high-altitude bomber, is capable of taking off from an aircraft carrier in one ocean, completing a mid-continent bombing mission and landing on a carrier in another ocean.

O and E's for CA

USS *Macon* (CA 132) has chalked up a real record for the other heavy cruisers of the Fleet to shoot at—a total of 27 E's for excellence—one for every gun turret, gun mount and gun director she carries! The clean sweep even includes the hard-to-get Fire Control E!

Macon's feat is unexcelled in recent years and you may, in fact, have to dig deep in the records to find marksmanship to beat it.

Besides the 27 E's, racked up in competitive exercises with the Fleet at Guantanamo Bay, Cuba, the proud cruiser's gunnery department also rounded out the fiscal year with the highest administrative rating the Navy has to give — OUTSTANDING! The mark was achieved in the administrative inspection by Commander Battleship-Cruiser Fleet.

Record for Alongside Refueling

USS *Wasp* (CVA 18) claims two hours and ten minutes as a record for steaming without changing rpm alongside a tanker while refueling.

On 21 Jun 1956 *Wasp* came alongside USS *Kawishiwi* (AO 146), one of the Fleet's six newest tankers, made preliminary adjustments, hooked up her lines, and steamed at a rate of 086 rpm. The rpm was kept at the constant rate, despite the changing weights of the two ships as the fuel was transferred. This was done by altering the distance between them, yet keeping the fueling stations side by side.

The refueling was completed after 887,005 gallons of fuel oil had been pumped aboard *Wasp*.

This is a record that may be hard to beat. Any challengers?

YESTERDAY'S NAVY

CAPT James Lawrence (who said "Don't give up the ship") was born 1 Oct 1781. On 11-12 Oct 1942, in the Battle of Cape Esperance, four U. S. cruisers and five destroyers intercepted and badly damaged a large Japanese naval force off Guadalcanal. The pioneer ironclad, *St. Louis*, was launched 12 Oct 1861. On 17 Oct 1943 a German raider was sunk by the submarine *Tarpon* (SS 175) off Chichi Jima. On 28 Oct 1812 CAPT David Porter sailed from the Delaware River in the frigate *Essex* on a long and colorful cruise that raised havoc with British shipping in the Pacific.

FLAT HAT—Navy's new early warning research plane with 30-foot ellipsoid 'saucer' will test AEW ideas.

Plane Sports Flying Saucer

A new early warning research plane resembling a flying saucer that captured an airplane has been built for the Navy to test advanced ideas in airborne radar stations.

Like nothing ever seen before, the new craft is a modified Navy WV-2 surmounted by a huge, discus-shaped structure spreading over it like a parasol.

This ellipsoid, measuring more than 30 feet across, is a radome which houses the experimental craft's search radar antenna.

The new aircraft is one phase in the development of a possible future model for the WV-2 airborne early warning planes now in operation. It is powered by four turbo-compound piston engines.

WV-2s in quantity are now on duty with Pacific and Atlantic Fleets. They work with task forces on the high seas as sentinels and as combat information centers.

Also, they fly over-the-ocean patrols as seaward extensions of the continental DEW line of radar stations.

Cruises for Scouts

Two groups of Explorer Scouts from Maryland and Virginia were guests of the Navy for cruises during the summer months.

Scouts from the Baltimore area made a 21-day cruise with Naval Academy midshipmen aboard the 37,500-ton aircraft carrier USS *Antietam* (CVS 36). They were assigned with the midshipmen and participated in shipboard drills and received instructions in various phases of carrier operations.

Just as the Baltimore scouts were getting underway, a group of Explorers from Post 67 at the Naval Amphibious Base, Little Creek, Va., were returning from a ten-day cruise to Bermuda.

They made the 1300-mile trip aboard the fleet oiler USS *Neosho* (AO 143).

The Explorer Scouts were selected to make the cruises on the basis of outstanding scholastic achievement and a high rating in the over-all Scout movement.

New Deputy Chief of Bureau

Rear Admiral Kenneth Craig, USN, became the new Deputy Chief of Naval Personnel when he relieved Rear Admiral Murr E. Arnold, USN, on 1 Aug 1956. Admiral Arnold, who was Dputy Chief of the Bureau since 1953, has assumed command of Carrier Division Four at Norfolk, Va.

Admiral Craig was graduated from the Naval Academy in 1926

RADM Kenneth N. Craig

RADM Murr E. Arnold

and was designated a naval aviator in 1930. He was appointed to the rank of Rear Admiral in 1954.

Prior to assuming his present job, Admiral Craig was Commander Alaskan Sea Frontier and Commandant of the Seventeenth Naval District. Previously, the Admiral has commanded USS *Sable* (1X81), *Croatan* (CVHE 25) and *Midway* (CVA 41).

News of Navy Ships

"Mighty *Missy*," or to be formal, **USS *Mississippi*** (AG 128) (Ex-BB 41), seems to have made her last voyage—after 39 years of active service. A veteran of untold miles of steaming, *Mississippi's* final cruise was the short one from Norfolk Naval Base to the Naval Shipyard at Portsmouth. There, moored at Berth One, she was ceremoniously given into custody of the Commandant, Fifth Naval District, for inactivation and stripping.

Missy's career began with her commissioning on 8 Dec. 1917. She went immediately into service, helping convoy troops and supplies to Europe for World War I; later she joined the British battle squadron to help keep the German navy bottled up in its own harbors, thus insuring Allied control of the seas.

BB 41 underwent general modernization in 1933, including removal of her cage masts, installation of an improved fire control system and armament, and a number of alterations in hull design.

Back on battle duty during World War II, *Mississippi* steamed nearly 170,000 miles while participating in eight major campaigns. During that strenuous tour of duty she fired some 10 million rounds of ammunition, shooting down nine enemy aircraft, sinking a Japanese battleship and destroying numerous enemy fortifications. She withstood repeated direct hits by kamikaze pilots.

During another period of alteration at the end of WW II, three of *Missy's* four turrets were removed and the latest in gunnery, fire control and radar equipment installed. She began duty with the Operational Development Force in 1947, and has been busy in the

Atlantic ever since in the testing, development and evaluation of new weapons and equipment.

While many a veteran may shed a tear for *Mississippi*—and the Navy tradition she represented—progress toward a completely modern Navy continues.

Submariners, for instance, are looking forward to a pair of new attack submarines for which contracts have been awarded. Designated SS 581 and 582, they will be of the new ***Barbel*** (SS 580) class, with ***Albacore***-type hulls and single screws, plus the most modern diesel-electric propulsion machinery. This hull-machinery combination, according to BuShips, offers the advantages of greater underwater speed, and better maneuverability than similar-sized postwar Fleet submarines of the *Tang* class.

Also in the undersea Navy:

• USS ***Grayback*** (SS 574) and ***Growler*** (SS 577) have added the letter "G" to their hull designations, becoming thereby recognized members of the Navy's guided missile submarine fleet.

• SSR(N) 586 has been assigned the name ***Triton***. Aside from being one of the largest submarines ever built, *Triton* is the Navy's first nuclear-powered radar picket submarine.

In the air Navy:

• USS ***Ranger*** (CVA 61), third of the Navy's ***Forrestal*** class has been christened at Newport News. She is scheduled for delivery to the Navy late next summer.

• The keel has been laid for USS ***Kitty Hawk*** (CVA 63), number five in this class. She is tentatively scheduled for completion in mid-1959.

• Construction of yet another ship of the ***Forrestal***-class (this one number six) has been assigned to the New York Naval shipyard, under the shipbuilding program for fiscal 1957.

• USS ***Hornet*** (CVA 12), having been completely outfitted with the carrier "new look," has returned to Southern California for duty.

• USS ***Intrepid*** (CVA 11) has returned from the Med for her scheduled conversion to angled-deck status, which will make the new look almost unanimous for Atlantic Fleet carriers. USS ***Antietam*** (CVS 36), ***Randolph*** (CVA 15), and ***Franklin D. Roosevelt*** (CVA 42) have already completed their conversion work. Both ***Ticonderoga*** (CVA 14) and ***Coral Sea*** (CVA 43) are scheduled for modernization; while plans for ***Lake Champlain*** (CVA 39) have been termed "unsettled" by LantFleet Air Force spokesmen. USS ***Valley Forge*** (CVS 45), because of her anti-submarine warfare mission and status, is unlikely to figure in current conversion plans.

• Finally, USS ***Siboney*** (CVE 112) has reported to Philadelphia for deactivation—the third time in her 12-year career that she has been put out of service.

The Navy's guided missile fleet will add USS ***Gyatt*** (DDG 712) late this year. *Gyatt*, like the missile ships already in the Fleet, will be armed with *Terrier* missiles—the first small ship to be so armed. DDG 712 is also the first U. S. Navy ship to have a roll stabilizer installed.

Similar to those in use on some luxury passenger liners, the stabilizer (although it is not a part of the guided missiles system) is expected to provide a steady launching platform in any kind of seaway.

Of interest to both oldtimers and the lads of our guided missile Navy is the announcement that a guided missile frigate to be built early next year will be named USS ***King*** (DLG 10) in memory of the late Fleet Admiral Ernest J. King, USN.

The 512-foot ship, equipped with *Terrier* missiles aft and mounting 5-inch gun batteries forward, will be built at the Puget Sound Naval Shipyard.

And speaking of names, AOG 81 and AOG 82 have been dubbed USS ***Alatna*** and USS ***Chattahoochee*** respectively.

Both of the gasoline tankers are now under construction.

Elsewhere around the Fleet, USS ***Price*** (DER 332) and ***Finch*** (DER 328) have been recommissioned and returned to the seagoing Navy, fully outfitted for new duties in the detection, identification and reporting of air, surface and sub-surface craft.

As a final note, USS ***New Jersey*** (BB 62) has been tentatively scheduled for deactivation during the present fiscal year.

Builds Ships, and Cars Too

A flotilla of fighting ships and sports cars don't sound as if they go together very well, but James B. Boswell, HM2, USN, has blended these and a collection of model kits, into an array of 10 model ships and 18 European and American automobiles of various vintages.

In his pint-sized fleet, he has made models in plastics and enamel of such U.S. Navy craft as USS *Wasp*, USS *Constitution*, the tug, USS *Long Beach* which was used to ferry barges across the Atlantic during WW II, USS *Franklin D. Roosevelt*, "Mighty Mo," USS *Missouri*, the Man-o-War, *Charles W. Morgan* which fought in the Civil War, USS *The Sullivans* named after the Sullivan Brothers, and a tug.

THE MOST IN CARRIERS — *USS Forrestal* (CVA 59) and *USS Saratoga* (CVA 60), meet at Hampton Roads, Va.

CREWMEN of *USS Manna* (DE 449) sample fresh coconut during atoll tour.

Navymen Visit Ponape, Nukuoro and Truk

Interesting thing about the Navy is that you meet such nice people. The recent cruise of USS *Hanna* (DE 449), which included a tour of the Eastern Caroline Islands, is an example.

It just happened that *Hanna* was assigned surveillance duties in the eastern reaches of the United States' vast protectorate in the mid-Pacific, the Trust Territory of the Pacific Islands. In addition to her primary objective of patrol and surveillance of the islands, *Hanna* also gave aid and assistance to the local natives whenever possible.

When the situation permitted, a hospital corpsman went ashore to determine the health of the people and to give medical treatment where possible. Messages were carried between isolated islands where postal service is measured in months, and two native school teachers from Nukuoro were lucky enough to hitch a ride to their atoll from Truk, saving them a wait of several weeks for the next boat.

The shore landings and overnight stopovers of *Hanna* gave the crew members an opportunity to view the fast disappearing way of life of these natives of the Central Pacific, with their palm-thatched huts, their exceptional outrigger canoes, their highly skilled arts and crafts.

On Truk they were treated to a dinner of mashed breadfruit; on the atoll of Ngatik the island chief served coconut milk for refershments; on Ponape several crew members visited the ruins of a city, built by the natives centuries ago, which is still an archeological mystery.

DE GOES NATIVE — Helping hands of *Hanna* made many friends among the natives during their ship's surveillance tour of Eastern Caroline Islands.

FASRon Sailors Learn Japanese

Not only has Robert E. Shaver, ATC, USN, learned to speak the Japanese language fluently, but has learned to read and write it as well.

During the past 16 months while assigned to FASRon 120, Shaver has been studying the Japanese language. To date he has "conquered" more than 400 characters in the Kanji system of writing Japanese.

Chief Shaver has not attended any organized classes in learning the Japanese language but has been aided by a tutor, and now has turned teacher himself, coaching two groups of FASRon 120 sailors. He has mastered the harder method of reading and writing—the Kanji—which utilizes words or characters that "picture" the thing it represents, while other methods stress phonetics.

"Japanese is not a difficult language to speak," the chief says, "but if you're interested in learning to read and write Kanji, you should plan to spend four years of intensive study to equal the average Japanese middle school graduate."

The "ichiban" (number one) Japanese speaking Chief of FASRon 120 offers his shipmates a fast course of "Japanese in 30 Hours."

Navyman Wins Scholarship

Marlin Jelinek, MU2, USN, has been selected for a grant to participate in the International Educational Exchange Program of the U. S. Government.

The 25-year-old Jelinek was selected by the Board of Foreign Scholarships under the authority of the Fulbright Act.

This Act is a program to increase good will and understanding between the people of the U. S. and the people of other countries through the exchange of students, teachers, university lecturers and research scholars.

The grant awarded to Navy Musician Jelinek includes cost of transportation in the U. S., travel to the host country and within the host country, tuition, books and an incidentals allowance. The grant is not a contract and Jelinek will participate in a private, non-official capacity.

Jelinek is a graduate of the Naval School of Music. Before he enlisted in the Navy, Jelinek received his Master's Degree in Music from the University of Michigan.

Working under Pressure

"Check the rudder? Inspect the ship's screws? Do the pump strainers need cleaning? Do you have any underwater welding or torch cutting jobs to be done?"

These are only some of the many tasks that a qualified diver, second class, can do—and one of the places where he can learn is the second class diver's school held on USS *YFNB-17* (a salvage barge attached to the Service Force, U. S. Atlantic Fleet) at the Convoy Escort Piers, Norfolk, Va.

To enter the school, the student must meet the same physical requirements as those for the submarine service. He must be able to stand a test of 50 pounds' pressure in a decompression chamber; take at least one indoctrination dive to test his adaptability to darkness and small spaces; receive a favorable report from an interview by a diving officer; and be recommended by his commanding officer.

While attending the six-week school, the student takes part in lectures, views training films, and participates in training sessions.

The next step is to practice what he has heard and seen. This is done in a 12-foot-deep practice tank where the instructors can observe the student, and on 40-foot-deep training dives from a float along the bank of the Elizabeth River.

These dives teach the student to work in complete darkness. He learns to do everything by feel. He does underwater welding and torch cutting, called "burns."

He must also patch a float to make it watertight, just as he would have to patch a hole in a ship so that the compartment could be pumped out and made watertight.

Working in pairs, the divers descend into the river, locate the float, and patch it. If, when they return to the surface, the water can be pumped out and the float can be raised, they have successfully completed the project.

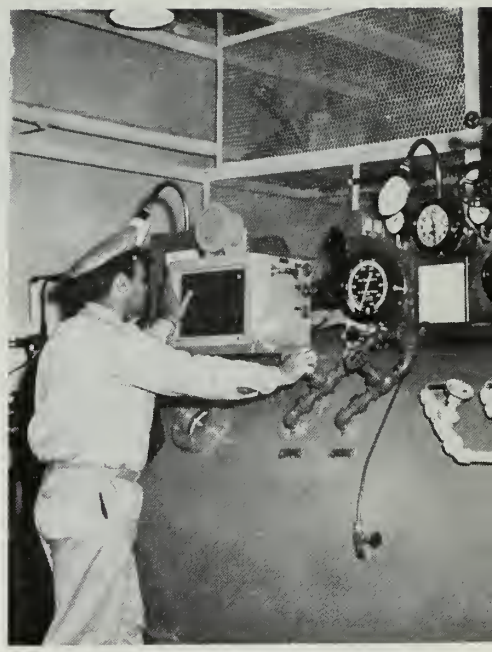
The students must also learn to work on any kind of bottom surface. This is done by means of a "bird cage," which consists of a stand 30 inches square, made of strap iron welded at the corners. The bird cage is tossed about 200 feet out into the river. The diver descends to the bottom and tries to find it. The bottom of the river where the students train has mud varying from three to seven feet, as well as spots that are fairly hard with sand and gravel. If the student knows his equipment and his job, he will not sink into or wallow around in the mud.

While they are in school, the students use deep sea diving rigs—the name for all their gear. This outfit weighs about 190 pounds before the diver climbs into it. His helmet weighs 54 pounds; his shoes —17½ pounds apiece; his belt (weighted with lead) 83 pounds; and the actual fabric suit weighs 18½ pounds.

A shallow-water diving rig weighs only 83 pounds. Instead of a helmet the diver wears only a face mask. His belt and suit are much lighter. He wears no shoes because his suit has thick rubber feet in them. In warm, tropical or near-tropical water, the diver may not even wear the suit or belt—just swim trunks and face mask. This rig is worn when diving no deeper than 40 feet. With the heavier rig, a diver, second class, is qualified to dive to a maximum of 150 feet.

The head instructor for the school on *YFNB-17* is John Moscoffian, PMC. His staff of four instructor-divers includes Robert L. Brown, DC1; James G. Warner, EN1; Glen E. Patterson, ME1; and Arthur E. Steber, BM2.

The Fleet's needs for divers, second class, are supplied through schools at Norfolk and in Charleston, S. C., or any of the ships such as *YFNB-17* designated by the Chief of Naval Personnel to train and qualify divers, second class.



UNDER PRESSURE—Diving instructor J. Moscoffian, PMC, turns on the pressure in decompression chamber during a test at the Norfolk school.

GOING DOWN — Student at divers school which is conducted on salvage barge YFNB 17 at Norfolk gets ready to don helmet for practice dive below.

THE BULLETIN BOARD

Officers in Certain Categories May Now Indicate Shore Duty Preferences by Type and Area

Officers in the 11xx and 17xx categories may now indicate on their Officer Data Card the "type" of short duty they prefer. Bureau plans are that, if at all possible, officers will be ordered into the type of duty they desire as well as to the geographical location of their choice.

This new procedure is being conducted on a trial basis and if it proves successful, it is planned to apply it to other code categories in succeeding years.

On the reverse side of the Officer Data Card, at the bottom, space is provided for aviators and naval aviation pilots to list certain statistical information concerning their pilot hours. It is in this space that preference for "type" of shore duty be indicated. Each officer should strike out the words "type of plane" and insert the word "CONUS." In the blank spaces to the right, he should use the abbreviations contained under the various heads as follows:

• *Administrative Services*—ADMIN. Typical of these billets are those related to legal, public information, security and police, and administrative duties not listed under other types.

• *Communications* — COMM. The billets included in this type involve operational, planning, and administative duties in connection with naval, joint, and combined communications ashore.

• *Intelligence*—INTEL. Included in this type are jobs concerned with intelligence evaluation, collection and dissemination and administrative duties within the intelligence field.

• *Material Services* — MAT. The jobs included in this type involve repair, construction and conversion of ships, logistic planning, material procurement and duty with the Military Sea Transport Service.

• *Operational Services*—OPS. Jobs in this type are concerned with strategic and operational planning.

"Well Crawford, your replacement has just arrived!"

• *Ordnance* — ORD. In this type, work is related to planning, research, development, evaluation and procurement in the ordnance field.

• *Personnel and Training*—P & T. Included in this type are billets related to personnel planning, procurement, training and distribution, such as billets in the Bureau's Fleet training centers, staffs of schools, recruiting billets and working with the Naval Reserve.

If the data card does not provide enough space for all the information an officer would like to furnish his detail officer, he should put the additional information on a 5 by 8-inch sheet of paper and staple it to to the data card.

Complete details may be found in BuPers Notice 1301.

PL No. 571, 84th Congress, set a $6500 limit on a single claim submitted for loss of personal property incident to military service, replacing the $2500 limitation imposed by Public Law 439, 82nd Congress.

Any claim settled for $2500 solely because of the maximum limitation can be reconsidered and settled in accordance with the new act. Claims submitted for an amount greater than $2500 which were approved for payment for less than $2500 are not included in the act.

Servicemen on active duty must submit requests via their commanding officers before 7 Jun 1957.

Details are in BuPers Notice 5890.

Tuition Aid Program Is Resumed for Navymen Taking Off-Duty College Courses

The tuition aid program, discontinued in 1952, has been resumed to help Navymen who'd like to further their education while off-duty.

Under the program, district commandants and certain force commanders are being furnished special allotments to be used toward paying tuition for voluntary off-duty courses, taken by naval personnel (with approval of their COs) at accredited colleges, universities and junior colleges. In the relatively few localities where armed forces personnel are charged tuition for high school courses, Navymen wishing to take them must forward their applications to the Chief of Naval Personnel (Pers-C113) for individual consideration. No payments under this setup will be made for schooling already under way as of 19 Jul 1956, or for courses taken at any time in the past.

To be approved by your CO a course must be taken for academic credit. It must also contribute to your improved performance of duty, professional capabilities, or qualifications for a baccalaureate degree. No payment will be made for enrollment in courses totaling more than six semester hours during any semester or six quarter hours during a quarter.

Payments, which will be made directly to the school by the commandant or commander concerned, will amount to 75 per cent of the tuition cost, not to exceed $7.50 per semester hour or $5.00 per quarter hour. All other costs must be borne by the individual.

Applicants for the program must be serving in the Regular Navy or on continuous active duty as Reserves. In addition, officers who sign up must agree to remain an active duty for two years after completing their studies and enlisted men must have enough obligated service to cover completion of their courses.

Application and other details are explained in BuPers Inst. 1560.10.

This Is Living in the National Capital for Navymen, Dependents

THE FAME OF WASHINGTON, D. C., as the seat of the federal government often overshadows everything else about this unusual city. Many Americans who have never been there and many who have seen the city only as tourists have little idea of what it would be like to live there.

For the benefit of those Navymen who might be going to Washington soon, here's some information on everyday life in and around the Nation's Capital. We say "in and around" because the District of Columbia is the center of a large metropolitan area extending well into Maryland and across the Potomac River into Virginia. In Maryland this area includes much of Montgomery and Prince Georges Counties. In Virginia it takes in most of Arlington and Fairfax Counties and the City of Alexandria.

The population of these suburbs is now much larger than the population of Washington itself, and like many Navymen you too may find yourself living in nearby Maryland or Virginia during your tour with the "Washington Navy." Therefore, the pointers on the following pages often apply to the whole D. C. area and not just to the District itself.

Climate—You may already have heard complaints about Washington's hot, sticky summers and cold, damp winters, but you'll also find the autumn and spring weather hard to beat anywhere. The city's average temperature ranges from 35.2 degrees in winter to 74.8 degrees in summer. There is an average of 40 inches of rain and 22 inches of snow a year. The humidity, which "it isn't the heat but the . . . ," averages from 60 to 70 per cent. Incidentally, if you have an air conditioner, be sure to bring it along if you want to "play it cool" in the hot, summer months.

Health Conditions—There are no unusual prevalent diseases in Washington, and no vaccinations other than those standard throughout the United States are necessary. Smallpox vaccinations are compulsory for school children.

Sanitary conditions are first class, because of the strict enforcement of building and sanitary codes. City water is excellent, although it may taste unusual to you at first, due to excessive chlorination.

Housing—It is no longer as difficult to find a house or apartment in Washington as it was during and just after World War II. However, prices of all types of housing are high.

Surveys indicate that it usually takes from one to four weeks for a newcomer to locate suitable housing for permanent residence. Therefore, unless you're willing to pay the high price for temporary lodgings, it's a good idea not to bring your dependents along until you've already located a place to live.

The best place to start your house-hunting is the ***Joint Armed Forces Housing Office*** in Room 1A884 of the Pentagon. There are also branch offices at Bolling Air Force Base in Southeast Washington and at the Main Navy Building in Northwest Washington. The Office maintains listings of rental accommodations and houses for sale, and has counselors to help you locate the place that fits your needs. Listings are not supplied by mail because they change daily and would probably be out of date by the time you receive them.

The amount of rent you'll pay is hard to estimate in advance, since so much depends on location, size, condition and various other factors. However, the following list, based on prevailing monthly rentals, should give you some idea of what to expect:

	Unfurnished	*Furnished*
3 and 4 Bedroom Houses	$125 to $175	$135 to $200
2 Bedroom Houses	100 to 150	120 to 150
3 Bedroom Apartments	106 to 150	175 to 225
2 Bedroom Apartments	87 to 99	110 to 150
1 Bedroom Apartments	73 to 86	85 to 125

In permanent housing of any kind you'll find the one-year, renewable lease prevalent. In many leases, though not all, there is a protective clause to cover permanent change of station.

Apartment rentals usually include utilities, while house rents do not. In most cases these apartments and houses are already equipped with kitchen ranges, refrigerators and lighting fixtures. Many apartment buildings also have central telephone exchanges with extensions in each apartment, and some provide coin-

Where To Find Information On Voting For Servicemen

Do you know exactly where to send your application for ballot? Do you know your state's requirements on residency, age, and poll tax? These and many other questions can be answered for you by your ship or station "Voting Officer."

Every command is required to have an officer designated as a Voting Officer and his job is to answer your questions concerning your voting privileges. If you have any doubts or questions, the Voting Officer is the man you want to see.

There are a number of sources of information available to you concerning your voting privileges. It is your responsibility as a Navyman and a citizen to get all the facts concerning your privilege to vote.

First of all, for a roundup on voting see the June 1956 issue of ALL HANDS, pages 22 to 25. This gives a state-by-state coverage of voting information.

Distribution of the chart titled *1956 Voting Information* (NavPers 15849B) to all ships and stations has been completed. The chart is a state-by-state breakdown of all major requirements for absentee voters. This chart should be displayed in a very prominent place at your duty station for your inspection.

Another publication, *Voting Information* (NavPers 15868A) is a manual designed for the use of voting officers and contains a more comprehensive and detailed resume of voting information than is contained in NavPers 15849B. This manual has been printed and distributed to all ships and stations.

In addition, BuPers Inst. 1742.2A of 2 Mar 1956 contains information on the part that the Navy will play in aiding all eligible men to cast absentee ballots.

Note that the "special instructions" on pages 2, 3 and 4 of *Voting Information* (NavPers 15868A) must be carefully adhered to, particularly with reference to filling out applications and ballots.

operated automatic washers and dryers.

A limited number of BOQs, with complete facilities including messing, are available for bachelor officers and married officers not accompanied by their families. These quarters are located at the Naval Air Station, Anacostia, D. C., and the Naval Receiving Station, Washington.

The ***Bellevue Naval Housing Project,*** for enlisted personnel and their families, contains 601 units of one-, two- and three-bedroom apartments. These units are *unfurnished,* except for stoves and refrigerators. Rental rates are:

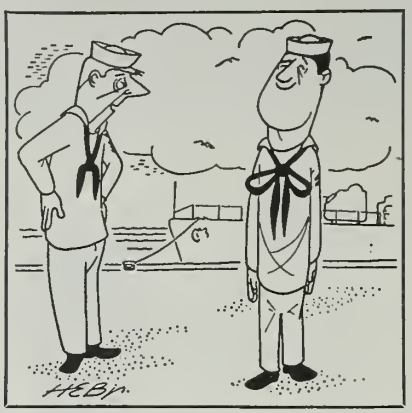
	Shelter	Utilities	Gross
1 Bedroom	$25.00	$16.00	$41.00
2 Bedrooms	37.00	19.00	56.00
3 Bedrooms	42.00	24.00	66.00

(The above utility rates are subject to minor fluctuations on the basis of continuing surveys of water, gas and electricity actually used.)

There is a considerable waiting period for Bellevue housing — 12 months for one-bedroom, eight months for two-bedroom and six months for three-bedroom units. Navymen who wish to live in the project should report to the Naval Housing Office, Building 57, U. S. Naval Gun Factory, for an interview regarding eligibility. If you are eligible, your name will be placed on a waiting list and you will be notified when a vacancy occurs.

Because of the long waiting period for Bellevue housing, some Navy families live in low-cost housing projects controlled by the ***National Capital Housing Authority.*** These projects are not considered as desirable as Bellevue, but might provide a temporary answer to your housing problem. The projects are divided into two classifications—permanent type construction and temporary type construction.

To be eligible for the permanent type, your annual total pay including BAQ, subsistence, sea and extra-hazardous duty pay must not exceed $2900 for two persons, $3000 for three to four persons or $3100 for five people or more. For the temporary type there is no graduated income scale, but maximum income (including BAQ, etc.) must not exceed $3800. Monthly rentals on permanent type units vary between $18.00 and $62.00, while rents for the temporary type range between $18.00 and $29.00.



"Well it does show a certain touch of originality, but. . . ."

The permanent type projects are ***21st Street Homes*** (36 units) at 2101 G St., N. E.; ***Knox Hill*** (350 units) at 3000 Knox St., S. E.; ***Highland Homes*** (350 units) at 400 Atlantic St., N. E.; and ***Stoddert Homes*** (188 units) at 2 Anacostia Rd., S. E.

The temporary type projects are ***Canal Street*** at 1st, O and P Sts., S. W.; ***Portland*** at South Capitol and 2nd St., S. E.; ***Overlook*** at Overlook and Chesapeake Sts., S. W.; and ***31st Street*** at 31st and F Sts., S. E. The Canal St. project consists entirely of two-bedroom units, while the Portland, Overlook and 31st St. projects have one- two- and three bedroom units.

Applications for National Capital Housing projects should be mailed directly to the National Capital Housing Authority on forms obtainable at the District Naval Personnel Office, Potomac River Naval Command.

Hotel Accommodations—There are many good hotels in Washington, although prices are high, as they are for all real estate. There is a public tourist camp, operated by National Capital Parks, in Washington's East Potomac Park and good motels are numerous in nearby Maryland and Virginia. Many of the motels and tourist homes charge very reasonable rates and offer good places to stay while house-hunting.

Household Effects — Household goods belonging to Navymen ordered to Washington are consigned to the Naval Gun Factory. For a limited period of time storage is provided by private van companies. After that the goods are transferred to the Gun Factory, where they are held until the consignee desires them.

Utilities—Gas and electricity are available in unlimited quantities and at reasonable rates. The gas is all natural gas, but if you have appliances designed for manufactured gas the gas company will adjust them without charge. Electricity is almost entirely AC, 115 volts, 60 cycles.

The usual heating season in the Washington area is from mid-September to mid-May. Fuel bills depend on the type of heating system and type and location of house. Coal, oil and gas are the common fuels used for hot water, steam or hot air furnaces. Coal costs range between 17 and 20 dollars a ton for soft coal and about 25 dollars a ton for hard coal. Oil costs 14 to 15 cents per gallon on orders of 150 gallons or more.

Because of limited cable facilities it may take you some time to obtain telephone service, especially in outlying areas.

Servants — Domestic servants, gardeners and men to do odd jobs around the house are scare and expensive in Washington. Domestic servants are usually paid between 20 and 40 dollars a week, depending on the number of meals they receive and the length of time they work, as well as on whether they "live in" or maintain separate quarters. Servants hired by the day are somewhat more expensive and their wages almost always include carfare.

Clothing — Washington's climate calls for wardrobes that range from heavy winter clothing to the lightest summer wear. Winter temperatures aren't excessively low, but the dampness in the air makes you feel the cold a lot more than you would in a dry climate. Although all kinds of clothes are available in Washington, it's a good idea to bring along all your serviceable clothing, for the cost of living is high, as in most large cities.

Children's clothing, especially snow suits and other large items, are expensive, but you can find good buys in the bargain basements of large department stores and the chain department stores.

Because of the influence of the "Government Girl," who is the prime consumer in Washington, there are many large and small stores where inexpensive women's wear is available. Attractive rayon or cotton street dresses can be bought for as little as

$8.00. There are also exclusive hat, dress and shoe stores for the woman who wants something fancier.

Shoes are especially high in Washington. In the past few years prices have risen 50 to 75 per cent.

Under a recent SecNav Instruction men and women Naval officers in the Washington area may now wear appropriate civilian clothing to work during office hours if they wish to do so. Otherwise, the uniform of the day is approximately as listed at the bottom of this page.

Coats must be worn in public, but may be dispensed with in offices.

Laundry and dry cleaning facilities are operated by Navy Exchanges. Pick-up stations are maintained in most Navy buildings in the area.

Shopping Facilities—There are five commissary stores in the Washington area for armed forces personnel and their dependents. An applicant for a commissary permit is assigned privileges at one commissary store only, normally the one nearest his place of residence. Applications for commissary cards may take anywhere from a week to six months for processing, depending on the workload at the particular store. The commissary locations are as follows:

Cameron Station	**Duke St. (extended), Alexandria, Va.**
Fort Myer	**Arlington, Va.**
Walter Reed Hospital	**Washington**
Fort McNair	**4th and P Sts., S. W., Washington**
Bolling Field	**Anacostia**

Small Stores may be found at the Naval Air Station, Anacostia; the Naval Receiving Station; Quarters "K" (at the rear of Arlington Navy Annex); and the Naval Gun Factory. There are uniform shops in the Main Navy Building and at NAS, Anacostia. In addition to the Ship's Stores and PXs found on most military installations there are also numerous shops and stores in the Pentagon which carry military and civilian items.

For civilian-style shopping the largest department stores are in downtown Washington, but there are also suburban shopping centers convenient to almost any location in the area. The principal department stores also have large suburban branches. A shopping service which offers discounts to armed forces personnel on TV sets and large household appliances maintain branches in the District, Maryland and Virginia.

The District has a two per cent sales tax as well as a food tax. Maryland has a three per cent sales tax. Virginia has neither sales nor food taxes.

Medical Care—Outpatient medical care for your dependents may be had at the dispensary in the Main Navy Building. Inpatient care is available at the Bethesda Naval Hospital, National Naval Medical Center, but for dependents, admittance is authorized only through the Main Navy Dispensary. The dispensary at the Navy Annex in Arlington is for uniformed personnel only. Since there are a great number of armed forces personnel and their dependents in the area, facilities tend to be crowded.

There are many excellent private physicians, dentists and oculists in Washington, but they, too, may have crowded schedules and prices may appear high. It's best to make appointments as far in advance as possible.

Schools—You'll find plenty of excellent schools in Washington from nurseries through colleges and universities. Public schools are generally good, although teacher shortages have caused some overcrowding. The only general requirements for attending D. C. public schools are that residence in the District must be shown and that the pupil have a birth certificate and a successful smallpox vaccination. In Maryland and Virginia, residence within the county or school district must be shown.

There are many private schools in the District and neighboring areas. Information on them may be obtained from the School Guidance Center, 3000 Connecticut Ave., N. W., or the Washington Schools Association, 3 Dupont Circle, N. W.

For those interested in higher edu-

WHAT'S IN A NAME

Mars Flying Boats

For more than 10 years, the four huge Mars flying boats — *Hawaii, Philippine, Marianas* and *Caroline*—have become personally known to tens of thousands of Navymen and their families as the famous aircraft shuttled back and forth across the Pacific from Alameda, Calif., to Honolulu and return.

That's over now. They're being retired in favor of the new R3Y *Tradewind*, a turbo-prop seaplane.

During their ten years of active duty, four-engined *Mars*'s carried 200,000 passengers and more than 20,000 tons of high priority cargo without a single mishap. While thus supplying the Pacific Fleet, they traveled a distance equivalent of 23 round trips to the moon.

Since the first *Mars* was delivered shortly after World War II, the planes have been flown by Navymen of VR-2, men who previously manned the PB2Y seaplane which became well-known to servicemen in the South and Central Pacific theaters during World War II.

Another seaplane, the XPB2M, forerunner of the present *Mars*, made its first flight to Hawaii in January 1944.

Eight years ago, in August 1948, one set a seaplane non-stop distance mark by flying 4728 miles between Honolulu and Chicago, a record that still remains untouched.

A month later, in September 1948, the same plane set another record by ferrying 67,327 pounds of cargo in a single flight between Patuxent River, Md., and Cleveland, Ohio.

Again in 1948, one of the giant seaplanes, in flight from Alameda to San Diego, Calif., transported 301 passengers in addition to its regular crew of seven.

cation, Georgetown, George Washington, Howard, American, Catholic and Maryland Universities all have their campuses in the Washington area. The University of Virginia Extension Service also holds classes in nearby Virginia and there are numerous other colleges, graduate schools, art schools, business and technical schools in Washington. Many Navymen are taking night classes in these schools to further their education.

Churches—The Washington area offers places of worship for almost every denomination. The historical significance and architectural beauty of many of these churches have made them well known landmarks for the sightseer.

Local Transportation—Washington has more automobiles per capita than any city in the United States, so parking and rush-hour traffic are real problems. Parking regulations and the movement of traffic are often confusing to the newcomer. However, if you heed signs before you park or before you turn, you shouldn't have too much trouble driving. Watch your speed too, for limits are rigidly enforced in Washington and surrounding states.

Public transportation is provided by streetcars and buses, which are more like sardine cans on wheels during the rush hours, but fares are reasonable and service is generally adequate. Taxicab service is convenient and the low rates are scaled according to the number of persons carried and the zones traversed. An excellent government transportation system links the various Department of Defense activities in the area.

Local Licenses and Taxation—The District, Maryland and Virginia allow armed forces personnel to drive with out-of-state license plates as long as they are current. But, if your tags expire while in the Washington area you are expected to register your vehicle locally or in your home state of record. Drivers' licenses valid in the state of registration are valid in Virginia, Maryland and the District. However, if your car is registered in D. C., Maryland or Virginia, you must have a driver's license from the same state.

J. Wing, DM2, USN.

"We're lost!"

In nearby Virginia, county tags are required in Arlington and Fairfax Counties and the City of Alexandria. These are issued free to military personnel whose cars are not registered locally. Personnel living in the District and Virginia must also have their cars inspected periodically and must display inspection stickers.

Under the Soldiers' and Sailors' Relief Act of 1940, as amended, a member of the armed forces, who has a legal domicile elsewhere, but is living in Maryland, Virginia or the District solely by reason of duty orders, does not have to pay local income and personal property taxes (except possibly on his automobile). In order to be exempt from personal property tax on his car he must show that the automobile has been registered in his home state and that any taxes due on it have been paid. This usually means the car must carry home-state license plates.

If you are legally domiciled in Maryland, Virginia or the District on the last day of the taxable year, you will be required to pay income tax to one of these jurisdictions. And if your wife works, even though she has a legal domicile elsewhere, she will have to pay local income tax if she lives in Maryland or Virginia for more than six months of the taxable year, or in the District of Columbia for more than seven months of the taxable year. In addition to income tax, Virginia imposes a tax on personal property located within the state on 1 January of each year.

Forms and communications received from Maryland, Virginia or the District government should not be ignored, even though you might be exempt from their taxes. Acknowledge them promptly, furnishing full information with respect to your state of legal domicile and military status, and you can avoid a lot of headaches. And remember, a serviceman stationed in the area by reason of duty orders is still expected to comply with the tax laws of his own state, even though living away from it.

The Soldiers' and Sailors' Civil Relief Act does not exempt you from local taxes on real property, so if you buy a home here you will be subject to state and local taxes on it.

Recreation—You shouldn't have a bit of trouble finding things to see and do in Washington, even though your wallet may not be bulging.

Sightseeing alone, if you should try to take in all the public buildings and places of historical interest in the area could occupy a large part of your spare time.

If your interests lie in spectator sports, there are big-league baseball, pro football and numerous college and schoolboy teams to see in action.

If you're hot for culture, you'll find plenty of art galleries, concerts, recitals, stage plays, museums and theaters to keep you from getting into mischief. And the best part of it is that many of these things won't cost you a cent.

So, when you get those orders to Washington, get set to make the most of them. Whether or not you enjoy your stay is strictly up to you.

UNIFORM OF THE DAY IN WASHINGTON, D. C., AREA

Dates	Male Officers and CPOs	Male Enlisted	Women Officers and Enlisted
Mid-Mar to Mid-Apr	Service Dress Blue B	Dress Blue B	Service Dress Blue B
Mid-Apr to Mid May	Service Blue B or Khaki	Dress Blue B or Undress White A	Service Dress Blue B or Gray Working
Mid-May to Mid-Sep	Service Dress Khaki	Undress White A	Gray Working or Service Dress Blue B
Mid-Sep to Mid-Mar	Service Dress Blue A	Dress Blue A	Service Dress Blue A

Briefs on New Laws Concerning Navymen

Here is a roundup and a brief description of new laws which are of interest to naval personnel. Some of the laws have been reported in detail in previous issues. In the case of others, detailed reports will be published as necessary when implementing action has been completed.

This summary includes those bills which have become Public Law since the last roundup in ALL HANDS (August 1956, p. 53). Bills which were listed as introduced in that and previous issues and on which no further action has been taken, are not described here.

Medical and Dental Officer Procurement—Public Law 497: provides for the crediting of constructive service for pay and precedence purposes, and to increase the amount of special pay per month.

Retirement in Highest Grade—Public Law 547; authorizes advancement on retired list to highest temporary grade in which service was performed satisfactorily.

Medical Care for Dependents — Public Law 569: provides authority for hospitalization and medical care of dependents of members of uniformed services in either military or civilian facilities. Dependent could elect either, but use of military would depend on extent of facilities and medical staff. Also, where the military facilities are adequate, the election may be limited by regulations to those facilities. (See ALL HANDS, September 1956, p. 52.)

Officer Personnel Act—Public Law 581: abolishes the fanning principle in assignment of running mates for Academy and NROTC graduates commissioned in or transferred to staff corps in grade of ensign.

Examination Prior to Promotion — Public Law 584: provides administrative flexibility in distribution of women officers (carry-down of numbers of vacancies in grade of commander to that of lieutenant commander, and permits selective retention of women lieutenants for total of 15 rather than 13 years).

Nurses—Public Law 606: authorizes transfer of nurses to the Medical Service Corps of the Regular Navy.

Enlisted Personnel — Public Law 614: provides for non-termination of enlistment contracts or obligated service of persons appointed to a service academy.

Readjustment Pay for Reserves — Public Law 676: provides lump sum payment to Reserve officers and enlisted personnel who are involuntarily separated from active duty after having served five or more continuous years of active duty immediately prior to such release.

Officer Augmentation Act — Public Law 737: extends authority for transfer of Reserves into regular service.

Missing Persons Act — Public Law 749: continues the Act until 1 Jul 1957.

Leave — Public Law 770: allows payment to survivors of unused leave pay for men who die after discharge but before final settlement of accounts.

Naval Reserve Officers — Public Law 775: establishes a date of rank for pay purposes of some 2800 Reserves promoted during World War II under the Naval Reserve Act of 1938 vice the Temporary Promotion Law (Public Law 188).

Enlisted Members, Navy and Marine Corps — Public Law 780: authorizes make-up of time lost as result of misconduct by extending period of enlistment.

Sea Duty Pay — Public Law 822: validates payments for services on *USS Sequoia* and on the Great Lakes.

ROTC Flight Training—Public Law 879: authorizes flight instruction during ROTC program training.

Survivor Benefits — Public Law 881: relates the amount of benefits to earning rate of servicemen at time of death, provides for contributory participation in Social Security, terminates gratuitous indemnity coverage, and increases long-term payments to surviving widows. (See ALL HANDS, September 1956, p. 46.)

Local Commanders Administer EM Correspondence Courses

Three new Enlisted Correspondence Courses are now available to all enlisted personnel.

There have been certain administrative changes since earlier announcements concerning new courses. For one thing, Enlisted Correspondence Courses will be administered (with certain exceptions) by your local command instead of by the Correspondence Course Center, as was the earlier practice.

If you are on active duty, your division officer will advise you whether or not the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have their courses administered by the Correspondence Course Center, just as in the past.

The new or revised courses are:

Course	NavPers No.
Chief Patternmaker	91551
Mineman 2, Vol. 1	91335-1
Patternmaker 1	91550

Courses which have been discontinued are:

Course	NavPers No.
Teleman	91400
Transport Airman	91560

"—And now we interrupt this program with a message from our sponsors."

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number. Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in August.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan. They are paid for by the BuPers Central Recreation Fund (derived from non-appropriated funds out of profits by Navy Exchanges and ship's stores) supplemented by annually appropriated funds. The Chief of Naval Personnel administers this program.

How to Be Very, Very Popular (589) (C) (WS); Comedy; Betty Grable, Robert Cummings.

The Man Who Knew Too Much (590) (C): Drama; Doris Day, James Stewart.

The Way Out (591): Drama; Gene Nelson, Mona Freeman.

The Scarlet Hour (592): Drama; Carol Ohmart, Tom Tryon.

Toy Tiger (593) (C): Drama; Jeff Chandler, Laraine Day.

The Virgin Queen (594) (C) (WS): Historical Drama; Bette Davis, Richard Todd.

Rock Around the Clock (595): Musical; Johnny Johnston, Lisa Gaye.

The First Texan (596) (C): Western Drama; Joel McCrea, Felicia Farr.

The Kettles in the Ozarks (597): Comedy; Marjorie Main, Arthur Hunnicut.

Gaby (598) (C): Musical Drama; Leslie Caron, John Kerr.

House of Bamboo (599) (C) (WS): Drama; Robert Ryan, Robert Stack.

The Searchers (600) (C): Adventure Drama; John Wayne, Vera Miles.

The Harder They Fall (601): Drama; Humphrey Bogart, Rod Steiger.

While the City Sleeps (602): Drama; Dana Andrews, Rhonda Fleming.

The Catered Affair (603): Comdy Drama; Bette Davis, Ernest Borgnine.

HOW DID IT START

Master-At-Arms

Masters-at arms—your Navy's policemen—are not what they used to be, or at least no longer what their title indicates. Originally (in the 17th century British Navy) the MAA had charge of all muskets, carbines, pistols and swords. He also made sure that bandoleers filled with good powder were ready for all hands before a ship went into action.

Records of our own early Navy show that a master-at-arms rating was established by an Act of 1 Jul 1797 and remained in effect until 1 Apr 1893, when the rating was broken down into three pay grades of chief, first class and second class.

The related rating of ship's corporal first appeared in the 1835 Navy Register, only to be abolished by executive order in 1893. MAA stalwarts of the old Navy, in addition to their duties as maintainers of discipline and order were responsible for drilling the seamen under arms.

Master-at-arms was disestablished as a rating effective 1 Jul 1921, but most of the duties remained, being taken over by other petty officers. Today's *Navy Regulations* state that "there shall be assigned under the executive officer a chief master-at-arms, and such other masters-at-arms as may be required as his assistants, for the maintenance of good order and discipline."

Nowadays, any petty officer may hold down a job as master-at-arms, but boatswain's mates, as top line POs, are usually the men assigned to the MAA force. Their immediate boss is the chief master-at-arms, who is the ship's senior enlisted man and

is directly accountable to the executive officer.

Regular MAAs are always on duty as police petty officers, maintaining order and discipline fore and aft, enforcing the ship's regulations—in short doing whatever possible to enable a large number of men to live together in a small space with a minimum of annoyance to each other.

MAAs also have charge of the brig, the lucky bag and the mess decks. The lucky bag MAA, who supervises the stowing of deserter's effects and gear found adrift about the ship, also insures that such effects are properly marked "DC" before being auctioned off. He may be assigned to hold three musters a day for prisoners-at-large and restricted men. Mess decks MAAs play daddy-o to the mess cooks, supervising their work, arranging their liberty, even holding reveille on them.

World War II GI Loans Extended to July 1958

Final date of the World War II GI loan program has been extended to 25 Jul 1958 under an omnibus GI loan law signed by the President.

The GI loan program previously was scheduled to end 25 Jul 1957 and, under the wording of the original law, all GI loans would be closed by that date.

Under the present law, any GI loan for which VA receives an application by 25 Jul 1958 may be guaranteed or insured by VA if it is completed by 25 Jul 1959.

The new law affects only World War II veterans. Korean conflict period veterans have until 31 Jan 1965 to obtain GI loans for homes, farms and business.

In addition, the new law will permit any veteran who sells residential property purchased with a GI loan to be relieved from liability to the government under certain circumstances.

Previously, the veteran who sold his property and allowed the purchaser to assume his GI loan still remained liable to the government if the property were foreclosed.

Now the veteran may be relieved of liability if the purchaser assumes full liability on the loan, the VA approves him from a credit standpoint, and the loan is current.

Report on Duty as USNS Tongue Point and Astoria, Oregon

FROM TIME TO TIME we've described some pretty nice stations in this section of ALL HANDS, but it seems to us that duty with the U.S. Naval Station, Tongue Point, or with the Columbia River Group, Pacific Reserve Fleet, Astoria, Ore., could match its attractions with any of the better known spots.

Here's the story, provided through the courtesy of Tongue Point's CO:

Location—The U.S. Naval Station, Tongue Point, is located about three miles east of Astoria, 10 miles from the Pacific Ocean on the Columbia River. Portland is 104 miles southeast of Astoria and Seattle is 184 miles northeast.

Mission—The primary mission is to provide logistic support and berthing facilities for the decommissioned ships of the Pacific Reserve Fleet's Columbia River Group.

The primary mission of the Columbia River Group is the deactivation, security, maintenance, and reactivation of assigned vessels.

The U.S. Coast Guard buoy depot maintains navigational aids in the area with its ships and lifesaving station located at Hammond, Ore.

Housing—Family housing is considered excellent. Public quarters and rental housing are available.

Public Quarters: Located in Navy Heights (about one and one-half miles from the station) is a 368-unit housing project. This consists of single, duplex and "fourplex" quarters for married officers and enlisted personnel. All units are two bedrooms with the exception of a limited number of fourplexes which have three bedrooms. The three-bedroom fourplex units are assigned to those with large families, priority given to those with the greatest need, regardless of date of application. The single and duplex married officers' quarters are assigned to fulfill the needs of the service, regardless of dates of application.

All public quarters are furnished (including electric range and refrigerator) and all utilities except telephone service are provided.

All officers and enlisted personnel drawing basic allowances for quarters for dependents (other than dependents in care of another or prohibited from dwelling with the member) will be assigned public quarters when they are available. The quarters allowance of personnel will be checked, even though they are not occupying quarters when public quarters are adequate and available for assignment.

Caution: You are advised to check with the housing office before you sign any lease or purchase any property in the vicinity of the station. At the present time there are sufficient vacancies to insure immediate assignment to quarters of all qualified personnel.

Rental Housing: Located in Tongue Point Village (about one half mile from the Naval Station) is a 110-unit naval rental project consisting of one-, two- and three-bedroom apartments. As a rule, only nonrated men are considered for rental units. Some units are furnished and some not.

Furniture Storage—There are no government warehouses available for storage of personal property. Commercial storage is available, but expensive. It's best to take care of your private property storage problems before you arrive at the station.

BOQ — This consists of a large brick structure containing quarters for permanent residents, several rooms for transient guests, dining room and bar and two comfortable lounges with TV and reading library.

Transportation — Astoria may be reached by US highway 101 and two transcontinental highways, US 30 and US 26. The airport is located three miles southwest of Astoria.

Motel and ***Hotel Accommodations***—Five hotels, seven motels and three trailer parks furnish accommodations of all types and price ranges.

"The second line, the word BVAXCDM, is spelled wrong!"

Climate — The climate is mild with an average January temperature of 42.8 degrees. The average maximum summer temperature is 70 degrees. Average rainfall is approximately 76 inches, with 80 per cent between October and April.

Recreation — On the station: Under the auspices of Special Services are a well equipped hobby shop with power tools and car repair equipment, also materials for leathercraft, painting, woodwork and tinwork, a recreation hall, movies, basketball games, indoor athletic facilities, field house of athletic equipment for check out, bowling alley (regular teams sponsored), recreation fund for dances, a tennis court, baseball and softball diamonds, a reading library.

Area Recreation Facilities: The Clatsop County beaches are within a few minutes drive of Astoria and every variety of sea-shore recreation is available at Gearhart, Seaside and Cannon Beach. Hunting and fishing are excellent. Deep-sea fishing, fishing for the royal chinook salmon and sturgeon in the Columbia River or trout fishing in the many streams of the area are available and within minutes of the station. Deer, elk and bear are plentiful in Clatsop County. Ducks and pheasant, in season, also attract sportsmen in large numbers.

Medical and Dental Facilities — Located on the station is a modern medical and dental building with a 70-bed hospital annex staffed by four doctors, six nurses and three dentists. It is the only military hospital in Oregon and also serves personnel of the Air Force, Army and Coast Guard.

Two civilian hospitals are located in Astoria.

Religion — Tongue Point Chapel, located in Tongue Point Village, serves the Navy population for both Protestant and Catholic services. Located in Astoria are twenty churches representing all denominations.

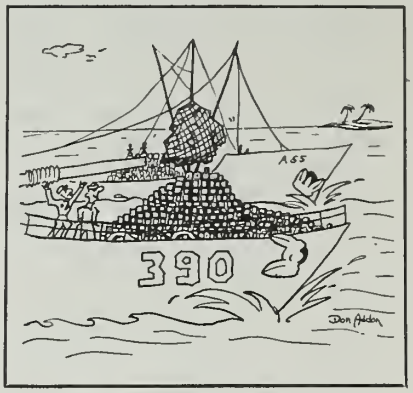
Education—Astoria has three public schools, one public high school and one Catholic parochial elementary and high school. A new public high school, to accommodate the increasing number of students, will be ready for classes in September 1957.

Pointers on Assignment to MAAGs, Naval Attaches, Missions

THINKING OF ATTACHE duty overseas? Like to try a MAAG assignment? Here's how you can request assignment to duty in naval missions, offices of naval attaches, military assistance advisory groups, joint staffs, and SHAPE (Supreme Headquarters Allied Powers Europe), with its various NATO components.

First of all, you should know that the Chief of Naval Personnel has control of the distribution of enlisted personnel to these activities and maintains an eligibility list of applicants. To control the size of the eligibility list, your name is removed from the list if you have not received assignment within one year from the date of your application. However, if still eligible, you may request that your name be replaced on the list at any time.

At present, billets have been established for all the rates listed below, plus aviation pilots. Enlisted women in rates indicated by an asterisk (*) are eligible for assignment in Italy, France and Japan.



"They're mine sir, I won a life supply of Bubble Bath Flakes in that slogan contest."

E-7: BM, QM, GM, DC, RM*, RD, SO, MM, EN, AD, TM, MN, FT, ET, AT, EM, IC, BT, ME, TD, YN*, PN, TE*, SK*, AK, DK, JO, CS, SH, CD, UT, CM, HM, DT.

E-6: BM, QM, GM, DC, RM*, RD, SO, MM, EN, AD, ET, AT, EM, IC, YN*, PN, TE*, SK*, DK, PH, DM, JO, CS, SH, CD, CM, HM, DT.

E-5: QM, RM*, MM, FT, ET, EM, IC, YN*, PN, TE*, SK*, DK*, LI, PH, DM*, JO, CS, CD, UT, CM.

E-4: RM*, BM, RD, EN, ET, IC, YN*, PN, TE*, SK*, DK, DM*, CS, CD, UT, CM, HM.

E-3: RM*, ET, YN*, TE*, SK*, CS, CD, CM.

You must meet these requirements listed below before you submit a request:

- Be within six months of completing a tour of shore duty, including overseas shore duty.
- If at sea, must have served at least one year on sea duty.
- Have an excellent record. If your record shows that you have committed repeated offenses, or a serious offense, you will not be considered.
- Have no record of civil arrest.
- Be financially solvent. If your record shows that you are having trouble paying your bills, you will not be considered.
- Have at least 30 months' obligated service at time of transfer, or agree to extend enlistment for the required service. If you have more than 17 years' active duty, you must also sign an agreement on page 13 of your service record that you will remain on active duty for three years.
- You cannot have completed a tour of similar duty within the past four years.
- Be a citizen of the United States.

It is preferred, but not essential, that you know the language of the area or country for which you make application.

If you are in pay grade E-7, more than three dependents will disqualify you; if in pay grade E-6, two dependents is the top limit to qualify; if in pay grade E-5, you may have only one dependent. If you are in pay grade E-4 or lower, no dependents are allowed.

Submit your request on NavPers Form 1339 (Rev. 56) to the Chief of Naval Personnel (Attn: Pers B21223) via your commanding officer. He will be requested to evaluate your application on the following factors:

Your ability to meet people and to represent the Navy on independent duty.

Your personality as shown by your manner of address, conversation and neatness of person.

An appraisal of your character as it affects the exercise of judgment and discretion.

The state of your health and physical qualifications for duty in foreign countries.

Whether your health record contains a history of alcoholism, psychiatric treatment, or other similar entries.

Whether your service record contains entries of intoxication or offenses involving moral turpitude.

Any other pertinent comment.

If you are selected, every effort will be made to order you to the duty of your choice, but in general, it is possible only to authorize a transfer to an area, rather than a specific activity.

Tours of duty will normally be for two years. To extend your tour, submit your request at least eight months before the expiration of your tour. If your relief has been ordered, chances are good that your request for extension will not be approved.

Art. 7000 of *Joint Travel Regulations* will be your guide for dependents' travel.

Complete details may be found in BuPers Inst. 1306.6B.

DD Is Boning Up to Capture Title of Smartest Navy Crew

Claiming records for one thing or another is an old Navy game, but laying claim to a record for homework is somewhat unusual in a Navy supposedly loaded to the gunwales with liberty hounds. Even so, *USS Isherwood* (DD 520) came steaming into San Diego after a six-month tour in the Far East and proudly announced that her men had resisted the attractions and distractions of the oriental beach strongly enough to rack up the following record: 51 per cent of all enlisted personnel and 50 per cent of *Isherwood's* officers were enrolled in the Navy's educational program.

Of the destroyer's total complement, over 100 men were enrolled in Navy Correspondence Courses, 19 were studying USAFI courses, and 34 had successfully completed high school or college-level GED tests during the six month cruise.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 35—Announced approval by the President of the reports of selection boards which recommended USN officers of the Medical Corps, Supply Corps, Civil Engineer Corps and Dental Corps for temporary promotion to the grade of rear admiral.

No. 36—Announced approval by the President of the report of a selection board which recommended Regular Marine Corps officers for temporary promotion to the grade of brigadier general.

No. 37—Announced approval by the President of the report of a line selection board which recommended USN and USNR officers for temporary promotion to the grade of captain.

No. 38—Announced funeral services for VADM L. D. McCormick, USN.

No. 39 — Announced certain changes in Vol. 4, Chap. 4 of *Navy Comptroller's Manual.*

No. 40—Announced approval by the President of the report of a selection board which recommended Regular Marine Corps officers for temporary promotion to colonel.

No. 41—Announced the convening of staff corps selection boards to recommend USN and USNR staff corps officers for temporary promotion to the grade of captain and commander.

Instructions

No. 1020.8—Authorizes officers and warrant officers serving in the Navy Department, Washington, D.C., to wear civilian clothing at their option.

No. 1021.9—Concerned with instructions regarding the resumption of the traditional prewar custom of officers wearing civilian clothing when on duty in the Navy Department.

No. 1085.42—Sets forth standard procedures to expedite the movement of service records of naval personnel.

No. 1306.6B—Prescribes the procedure for enlisted personnel to request assignment to duty in naval missions, offices of naval attaches, military assistance advisory groups, joint staffs and NATO components.

No. 1321.2B—Announces policies and procedures for the issuance of temporary additional duty orders

EQPFOR, ELCTECH, CHELEC, CHAERO—Now You Try It

It's official now. The correct way to address warrant officers in writing has been laid down by BuPers Notice 1210.

From now on, when warrant officers are addressed individually (in matters other than appointment, promotion and precedence), *"descriptive grade titles,"* such as Boatswain, W-1, will be used in written material in which ranks are usually spelled out, and *"short titles,"* such as BOSN, W-1, will be used in dispatches and other communications in which officer ranks are normally abbreviated. In matters of appointment, promotion and precedence, *"military grade titles,"* like Warrant Officer, W-2, are used.

For example, the correct procedure in legal correspondence would be:

From: Commanding Officer
To: Chief Ship Repair Technician, W-3, W. T. Door, USN, 999999/774x

In writing orders and unofficial correspondence, either descriptive grade titles or short titles may be used. For instance, in an unofficial letter the salutation might be:

CHSHIPREPTECH, W-3, W. T. Door, USN (or Chief Ship Repair Technician, W-3, W. T. Door, USN) USS Cranch (AR-508) c/o Fleet Post Office, New York, N. Y.

In a certificate of appointment the correct usage would be Warrant Officer, W-1, or Chief Warrant Officer, W-2, W-3 or W-4.

The new notice does not affect the customary military courtesies involved in conversation with a warrant officer. When speaking to a WO or introducing him to other military personnel, he should still be addressed as "Mr. Door." When introduced to a civilian he should be called "Warrant Officer Door."

The short and descriptive grade title, corresponding to military grades for each of the 24 warrant technical fields were established by SecNav Inst. 1210.2. Here is a complete list of them:

Designator No.	Descriptive Title	Short Title
711x	Aviation Operations Technician	AVOPTECH
713x	Boatswain	BOSN
721x	Aviation Ordnance Technician	AVORDTECH
723x	Surface Ordnance Technician	SURORDTECH
724x	Ordnance Control Technician	ORDCONTECH
733x	Underwater Ordnance Technician	UWORDTECH
734x	Mine Warfare Technician	MINWARTECH
741x	Aviation Maintenance Technician	AVMAINTECH
743x	Machinist	MACH
749x	Equipment Foreman	EQPFOR
754x	Electrician	ELEC
759x	Construction Electrician	CONSTELEC
761x	Aviation Electronics Technician	AVELCTECH
764x	Communications Technician	COMMTECH
766x	Electronics Technician	ELCTECH
774x	Ship Repair Technician	SHIPREPTECH
779x	Building Foreman	BLDGFOR
782x	Ship's Clerk	SHIPCLK
785x	Bandmaster	BANDMASTER
798x	Supply Clerk	SUPCLK
817x	Medical Service Warrant	MEDSERWRNT
818x	Dental Service Warrant	DENSERWRNT
821x	Aerographer	AERO
831x	Photographer	PHOT

which involve travel of officers and midshipmen.

No. 1416.2A—Contains information and instructions for the examination of officers selected for captain.

No. 1440.13A—Establishes a program to qualify certain Group IX career petty officers for change in rating to AT, AQ or GF.

No. 1520.15C—Promulgates the eligibility requirements and procedure for officers to request postgraduate education.

No. 1550.6A—Provides a single, ready reference for procedures to be followed by all training activities and commands under the management control of the Chief of Naval Personnel.

No. 1650.5B—Concerned with foreign awards to U.S. naval personnel for service in Korea together with a complete list of commands and units awarded the Korean PUC with participating dates.

No. 1745.4—Reduces the assessment levied by the Chief of Naval Personnel against profits earned by the Navy Exchanges and Ship's Stores Afloat.

No. 5510.3E—Publishes a revised list of courses for which security clearance is required.

Notices

No. 1210 (24 July)—Establishes proper terminology for addressing warrant officers individually, either in orders, official correspondence, or in unofficial correspondence.

No. 1410 (26 July)—Requested estimates on the numbers and categories of naval personnel required for data processing assignments.

No. 1111 (27 July)—Promulgated information relative to the selection of enlisted personnel on active duty for appointment as midshipmen in the NROTC program for the class entering school in the fall of 1957.

No. 1746 (30 July)—Announced procedures to be followed in prorating charges between appropriated and nonappropriated funds for utilities furnished to Commissioned Officers' Messes ashore within the continental United States.

No. 1111 (31 July)—Announced Change No. 1 to BuPers Inst. 1111.4B which is concerned with the nomination of qualified enlisted personnel for the NROTC program.

No. 1223 (1 August)—Announced approved changes to the enlisted rating structure.

No. 1133 (6 August)—Announced Change No. 1 to BuPers Inst. 1133.5, which is concerned with the assignment to school as an incentive to enlistment.

No. 5890 (6 August)—Announced passage of Public Law 571 (84th Congress), which raised the maximum limitation on personnel claims.

No. 1746 (7 August)—Provided policy guidance with respect to cooperation with the liquor control authorities in states which engage in the business of buying and selling alcoholic beverages.

No. 1085 (10 August)—Issued instructions for the preparation of the new Enlistment Contract (NavPers 601, Rev 2-56).

No. 1742 (24 August)—Called attention to the distribution and availability of material designed to enable naval personnel to exercise their absentee voting privileges.

Information Center Opens at Norfolk for Navy Families

A new Naval Dependent's Information Center is now in operation at Norfolk.

The new facility, located on the north side of Admiral Taussig Boulevard at Naval Base Gate 2 will provide information and assistance to active duty and retired military personnel and their dependents.

The Center will offer information on housing, travel, benefits, dependents' identification cards and passes and living conditions at overseas bases.

The Center will also be prepared to answer requests for information from personnel throughout the naval establishment who have orders or who anticipate orders to Norfolk.

The center will be open Monday through Friday from 1000 to 1900 and on Saturday from 1000 to 1400. Reserved parking spaces are available adjacent to the Center, which may be entered without going through Gate 2.

Wave Hospital Corpsmen May Apply for Navy Nurse Training

Wave hospital corpsmen are now eligible to apply for a nursing education program, which will lead to a commission in the Nurse Corps of the Naval Reserve.

Waves who meet the set qualifications, including age, education and service, will be discharged from their present enlistment in order to reenlist for six years in pay grade E-3 of the active Naval Reserve. They will be enrolled at a civilian nursing school designated by the Chief of the Bureau of Medicine and Surgery. The Navy will pay for tuition, fees, books, uniforms, room and board.

Upon successful completion of the program, the Waves selected receive commissions as ensigns, with an obligation to serve one year on active duty for each year of training.

Applicants must have at least one year on active duty, six months of which has been on ward duty, while engaged in the care of patients. They must have been graduated in the upper half of their high school classes and must satisfy college entrance requirements.

Any selectee failing to complete the program must either remain on active duty in the Naval Reserve for a period of two years or reenlist in the Regular Navy for four or six years, and will retain rate held immediately before entering program.

Further details may be found in BuPers Inst. 1112.27.

Regulars and Reserves Promoted to Rank of Captain

The President has approved the selection of 295 officers of the Regular Navy and Naval Reserve of the line on active duty recommended for promotion to the rank of captain.

Among the selectees, 227 are of the unrestricted line and 68 of the restricted line. Officers considered were commanders with dates of rank of 1 July 1952, and earlier.

Three New Correspondence Courses Ready for Officers

Three new officer correspondence courses are now available through the Naval Correspondence Course Center:

- ***Shiphandling*** — NavPers 10738 — is a six-assignment course evaluated at 12 Naval Reserve points credit.
- ***Navy Admiralty Law Practice*** — NavPers 10725 — is a one-assignment course evaluated at three Naval Reserve points credit.
- ***Basic Mechanical Engineering*** — NavPers 10748 — is a four-assignment course evaluated at eight Naval Reserve points. Course is restricted to officers of the Civil Engineer Corps, Regular or Reserve.

Application for enrollment should be submitted on Form NavPers 992 (Rev. 10-54 or later), forwarded via channels to the Naval Correspondence Course Center, Building RF, U. S. Naval Base, Brooklyn, N. Y.

USNR Staff Corps Officers Selected for Promotion to LT

A total of 2482 Naval Reserve staff corps lieutenants (junior grade) have been recommended for promotion to lieutenant. The recommendations were made by the USNR staff corps selection board which convened in the Bureau last summer.

Male officers recommended for promotion included: Medical Service Corps—41; Chaplain Corps—61; Civil Engineer Corps—226; Dental Corps—300; Supply Corps—828; Medical Corps—804. Also in the group recommended for promotion were three women officers in the Supply Corps, one woman officer in the Medical Corps and 218 women officers in the Nurse Corps.

Correspondence Course on Claims for Legal Officers

A new officer correspondence course, ***Claims*** (NavPers 10727), is now available at the Naval Correspondence Course Center. This course is designed for legal officers. It consists of three assignments and is evaluated at six Naval Reserve points credit.

Application for enrollment should be made on form NavPers 922 (Rev 10/54 or later), forwarded via official channels to the Naval Correspondence Course Center.

SIDELINE STRATEGY

A MEMORABLE SPORTS era passed silently into the books recently when *Old Missy, USS Mississippi* (AG 128) ex BB-41, went into mothballs and eventually to the fate of all old-timers. *Mississippi,* the eldest of the elders, was not only an excellent ship, but rated as one of the "sportingest" ships in the Navy.

In its class, it has taken probably more championships and produced more individual champions than any other ship in the Navy. Certainly, the way things are going now, no ship will have much of a chance to equal, much less surpass *Missy's* record.

Mississippi was the first ship to win the Iron Man Trophy when it came into competition in 1919. *Missy* retained possession of the trophy for the next six years before it was won by *USS California.* The Iron Man was awarded on a system of points figured on the basis of participation and standings of ships' athletic teams.

Again during the 1929-1930 sports season, the athletes from *Mississippi* regained possession of the Iron Man. It's interesting to note that in addition to being sports king during these years, *Mississippi* also was winning Fleet target and battle practice awards.

★ ★ ★

Navy Athletes will get their final chance for an Inter-Service championship 4-6 October at Camp Lejeune, N. C., where the boxing championships are slated to be held. Carrying Navy's banner will be: flyweight Jerry Johnson, bantamweight Ronald Andrews, featherweight Bob Nichols, lightweight Tabby Lee, light welterweight Duhart Bailey, welterweight Henry Brown, light middleweight Bob Berdahl, middleweight Frank Keating, light heavyweight Phil Ness and heavyweight Roy Louson.

The Navy boxers have been training hard to reach their peak this month for two reasons. In winning the All-Navy boxing matches this April they also qualified for the American Olympic Trials 14-16 October in San Francisco. The 10-man Navy team will be entered, as will teams from all the other services.

Naturally, the boxers will be in there giving their best for the Inter-Service title, but want to or not, their sights will naturally be set on the upcoming bouts with a fabulous trip to Australia and a chance to become world amateur champion in the offing. Other than for possible warm-up bouts, the Inter-Service boxing this year will be a build-up for a bigger climax ten days later.

After nearly two years of planning and construction work, one of the finer and larger swimming pools in the Tidewater, Virginia, area was recently opened at the U. S. Naval Mine Depot, Yorktown, Va. The pool was made possible by a grant of $40,000 from the Navy's Central Recreation Fund.

—Rudy C. Garcia, JOC, USN.

BOOKS: LIGHT READING FOUND IN THIS MONTH'S SELECTION

INTERESTING READING, is on the literary bill of fare for this month. You'll find the books described below, as well as many others, in your ship or station library.

Sports fans will have more than their share of the good word in ***The Sweet Science,*** by A. J. Liebling and in ***Wake Up the Echoes,*** which is edited by Bob Cooke. The "sweet science" is, of course, boxing. Liebling, one of the most literate craftsmen of our times, here presents a personal and polished accounting of the square ring from 1951 to 1955. He covers all the outstanding bouts of the period and, in addition, many of the lesser-known and less glamorous fight clubs. However, as any Liebling reader knows, he doesn't content himself with a mere account of the actual battle. He gives all the sidelights—the managers, trainers, and other hangers-on; the people in the crowds, the specialized gallery that follows the events at the training quarters, the localized feeling of the fans in New York, Chicago, and Philadelphia and the excitement of the big night. There is much boxing history, lore and legend skillfully combined in the narration. *New Yorker* readers will find much of the material familiar, as it earlier appeared in that publication.

Wake Up the Echoes is something else again. It retells the stories of sports events and the men and women who participated in them as reported in the sports columns of the *New York Herald Tribune* and its syndicated services. It's a roll-call of the greats—not only great athletes, but great sports writers, such as Grantland Rice, Heywood Broun and W. O. McGeehan. They, and contemporary writers such as John Kiernan, Red Smith and Editor Bob Cooke himself tell yarns of great teams, outstanding stars and never-to-be-forgotten events of the past quarter century and although many have a nostalgic quality, they also read like today's stories at their best. They have the timelessness that marks the classics.

Straight "adventure" stories that read like fiction, but aren't, may be found in ***Adventure in Diamonds,*** by David E. Walker, and ***Ship 16,*** by Ulrich Mohr. *Adventure* tells of a one-day mission from England to Amsterdam in 1940 to cheat the invading Germans of gems and industrial diamonds, which not only had fantastic financial value but were also of great industrial importance. Two Englishmen and a Dutchman have the job of persuading the Amsterdam diamond dealers to deliver their stocks for transportation to, and storage in, England. It wasn't simple. It was, however, downright dangerous. Dangerous from the time they began their passage across the channel, danger in Amsterdam, from fifth-columnists and highjackers as well as more conventional Nazis. There's suspense during the wait while the diamond dealers come to their decision and sheer drama as each of them hand over their precious gems—with no security and no assurance that they would ever be returned. Quite a story, even if a little overwritten.

Ship 16 is the only seafaring number selected for review in this month's selection. It's really the story of the secret German raider *Atlantis*—the "naval Lon Chaney disguise artist." She was equipped with 5-inch guns, torpedo tubes and a seaplane. With these, she sailed into African and Pacific waters to find 22 victims which were either sunk or captured intact. She captured fuel oil and used it for refueling subs. It's an interesting and readable yarn.

The Civil War comes in for its share of attention in the novel ***Roll Shenandoah,*** by Bruce Lancaster. Although in fiction form, much of the story centers about Phil Sheridan and the Shenandoah Valley campaign.

The hero, Ellery Starr, invalided out of the Union Army, finds a way back into service as a reporter and it is in this capacity and as an experienced ex-army officer that he wins the confidence and friendship of Sheridan. There's a shrewd combination of battle scenes, politics, mystery and, of course, romance to be found in this product of a skilled writer.

A series of easy-reading yarns may be found in ***Blue Chip Haggerty,*** by Ray Millholland. The book consists of 12 collected short stories which have appeared from time to time in the *Saturday Evening Post*. They follow a standard pattern in which Blue Chip, a master mechanic, gets himself into a jam, and then out again.

It's dated, inasmuch as the general theme is based upon war orders and how Blue Chip, as superintendent, meets the unusual demands and rigid specifications of Army and Navy. New problems turn up in each story, new situations spur him to various techniques and tricks and, each time, Blue Chip displays the masterful touch.

An outstanding think-piece in this month's selection is ***What Man May Be,*** by George R. Harrison. It's a review of modern science in all its aspects, and specifically an attempt to relate scientific progress and ideals to the life of the average man. This may sound like dry stuff, but it isn't. The author touches lightly upon chemistry, biology, astronomy, physics, psychology and other sciences, pointing up their potential applications whether in heating with solar energy or recreating a genetic structure. Writing in an unassuming and agreeable style, the author suggests that, no matter how complex our lives may become, we still remain men—neither gods nor robots.

SONGS OF THE SEA

The Armored Cruiser Squadron

Here's to the cruisers of the fleet,
So goldurn fast they're hard to beat,
The battleships they may be fine,
But me for a cruiser every time.
We are the boys who shoot six-inch,
Or anything else when we're in a pinch;
Gee, but the battleships are a cinch
For the Armored Cruiser Squadron.

NAVY IN CHINA - 1900

Naval Cadet C. E. Courtney received his orders on 25 Jan 1899 directing him to proceed to New York for duty on board *USS Newark*. The following year, Cadet Courtney found himself participating in a desperate attempt to relieve the foreign legations besieged by the "Boxers" in Peking, China.

In 1900, the U. S. Asiatic Squadron was called on to participate in the defense of American lives and property in China as a result of activities by the "Boxers," a native group pledged to the expulsion of all "foreign devils" from Chinese soil. The Boxers, whose Chinese name in very free translation was "The Fist of Righteous Harmony," or "Society of the Harmonious Fist," at the outset had the favor of many well meaning men, but it soon came under the control of fanatics. In late spring of 1900 after many foreigners were killed, the foreign legations in Peking requested military and naval support from their home governments.

The United States sent the armored cruiser Newark, *among other vessels, to Tientsin and a 56-man reinforcement to the legation guard in the walled European compound of the city. Soon afterwards, the Boxers began attacks on the legation area. An improvised international relief column of some 2000 men tried unsuccessfully in June to fight its way inland to Peking. About 112 U.S. Navymen, under Captain Bowman H. McCalla,* USN, *of* Newark, *participated in this effort to relieve their comrades. As described below, Cadet Courtney was a member of the small force that journeyed to Peking with the legation guard reinforcements. Shortly afterwards he was to join the rescue column that attempted to reach the isolated city.*

MAY 27—Anchored off Taku at the mouth of the Peiho about seven miles off the shore. The French flagship *D'Eutre Casteaux* came in at the same time we did and the Chinese flagship *Hai Fieu* and a Chinese cruiser were found at anchor. There are a good many Chinese junks drifting around and a few merchant ships at anchor. The shore is not in sight. Visited the *Hai Fieu* on duty and was shown around the ship by a young lieutenant who spoke English very well. The ship is a very fine one, with clean white decks and lot of bright work, the guns are kept in fine condition, but, he said, they had target practice only three time a year, and then fired three shots only from each gun. They do not have sub-calibre practice.

MAY 29—Awakened at 5 o'clock by the Captain's orderly and told to be ready to leave the ship with a landing party at 0615. At that time 120 officers and men with a 3-inch field gun and two Colt automatics left the ship. Captain McCalla, and the Marines from *Oregon* with Captain J. T. Meyers, went in the tug boat which brought off the news which caused the Admiral to send us ashore. The rest embarked in ship's boats towed by the steam launch.

By the time the expedition reached the bar it was low tide and the steamer, followed by the other boats, keeled over and rested on her side in the mud.

There were a lot of Chinese craft around, and in a few minutes the men were scattered in small squads making the rest of their way in sampans to the mouth of the Peiho. The Chinese boatmen poled their craft along patiently until a fair breeze sprang up when the sails were hoisted and the different boats were soon under the guns of the Taku Forts, where they assembled and waited for the steamer which had got off the bar with the flood tide and was now coming in under a full head of steam with sailing launch and cutters in tow.

We had proceeded a short distance up the river towards Tongku when our flotilla was stopped by an order from Admiral Kempff to wait for further orders. Cap-

From *Journal* by Naval Cadet C. E. Courtney, Naval Records Collection, made available through the courtesy of the Navy Section, National Archives, Washington, D.C.

CAPT. B. H. McCALLA (left) was skipper of *USS Newark*. Midshipman Courtney (right) led landing party on Taku.

tain McCalla had gone to Tongku, the railway terminus, four miles up the River. He had taken the 1:40 PM train for Tienstin, we heard, but the *Oregon's* Marines who were with him were not allowed to take passage on the railway without the permission of the Viceroy.

They came back to Taku on a tugboat, and on account of a report which had been telegraphed from Tienstin to the effect that the forts had been given orders not to allow any more armed forces of foreign nations to pass by them into the interior, our departure from under their guns was somewhat hastened perhaps, and we left late in the afternoon for Tienstin on a lighter. The distance by railway is only 30 miles but by the tortuous river it is fully 60.

Early that afternoon the Chinese soldiers had taken two large field pieces out of the north fort at Taku, and dragged them along the river bank towards a fort which was situated about Tongku. Not knowing the meaning of this action, it was deemed advisable by Captain Meyers of the Marines, in command, to go by this fort with as little ostentation as possible, and we did not come on deck until the fort was out of range behind us.

For three hours of daylight everyone found the Chinese villages and fields and what was to be seen of Chinese life, of great interest. The river is so narrow that our lighter frequently had her stem flung against the bank as the tug whisked her around the sharp bends. Excepting the tug grounding once when in sight of Tienstin, and a sleeping sailor who rolled overboard in the shallow water, there were few incidents. We arrived in Tienstin about 10 o'clock. Captain McCalla was there to meet us, and also, I believe, all the foreigners residing in the city.

The companies of Marines and bluejackets and the section hauling the three-inch gun then marched to their quarters at Temperance Hall, and small groups of ladies and gentlemen cheered them as they went by. When the column was drawn up in two lines in front of their quarters, the citizens gave them three cheers, and went home to sleep more securely than was possible the two preceding nights.

The situation did not seem to us to justify the anxiety of the residents, although there had been many acts of incendiarism, and the insolence of the Chinese coupled with the fact that a few murders had been committed by the "patriotic society of Boxers" would naturally give rise to a feeling of insecurity in a community which had a city of over one million Chinese next door. Then they were glad to see *Newark's* men because they were the first on the spot.

The burning of Fungtai, a few miles from the walls of Peking, by the Boxers, under the eye of the Imperial troops, caused the Ministers to call for protection from the warships which had arrived in large numbers off the Taku Forts since *Newark* dropped anchor there. By the morning of the 31st, England, Germany, France, Russia, Japan and Italy had forces in Tientsin.

In order to send guards to the legations it was necessary to get the permission of the King Li Yamen, and this was granted at daylight of the 31st, after the most urgent demands of the Ministers. Then, at Tientsin, the commanders had to secure the permission of the Viceroy before a train could leave the station.

At one o'clock in the afternoon of the 31st, the American Marines were first to arrive at the Tientsin station. Then ensued a three-hour wait before the French, Italian, Russian and Japanese and English arrived. The heat of the sun was intense.

While waiting, a correspondent showed me a letter which had just come in on a train from Peking a few moments previously. The word "doomed" was used in reference to the foreigners in Peking, and the opinion expressed that the column of 400 men would only serve to infuriate the Chinese soldiers encamped around Peking, their number being estimated variously between 25,000 and 50,000.

Some men who had lived long in China thought that the column would be sacrificed, as General Fung was reported to have resolved upon its extermination. This General was in command of 8,000 well drilled troops, finely armed with the newest rifles, and were reputed to be the best in China. They came from Tibet and although of Chinese-Turkish blood, were known as "The Mohammedans." Judging the Chinese by their performances in the war with Japan, however, we took the most alarming rumors lightly, but subsequent events proved that they were not without some foundation. The train was run through between 4 and 7 PM on scheduled time, the only evidence that affairs were not in the normal state being the Chinese soldiers who were stationed to guard the railway stations as far north as Yangku, a city of 60,000 people 18 miles above Tientsin. At Fungtai the Boxers had left their mark unmistakably on all the railway company's property, the station and shops being in ruins. Between this point and Machiapo we passed many camps of Imperial Troops, and Captain McCalla took the precaution to order me to go forward to the flat car and have the Colt gun ready for use.

At Machiapo, the Peking station, three miles from the nearest gate of the city, the troops left the train and the Americans at once took the road for Peking, a Japanese servant of the Captain having had it pointed out to him as soon as the train stopped. A point of four men was sent ahead, we not knowing the character of the reception to be accorded to us by the Chineses troops. After going a mile some Europeans who had been sent out to meet us rode up, and assured Captain McCalla that the gates would be kept open for us.

Passing the Park in which part of the soldiers of Tung fu Schiang were encamped, we arrived at the south gate through which the American advance under Captain Meyers was the first to enter. The Russians followed us and the other nationalities followed close up.

Inside and outside the South Gate, large numbers of

poorly clad Chinese were gathered to witness silently the passing of the body of foreign troops.

The first to greet the American was Mr. Conger, and as the Marines marched in, someone sprung a flashlight photograph on them. I felt that there was as much dust in my throat as on my clothes, and they were covered.

The Ministers had some difficulty in getting the Government's permission for the Guards to enter Peking, but by making a demand in concert and asking for a reply within a certain time, the permission was granted at the last moment. They wanted us especially to be present on the first of June, a great Chinese festival, when under the influence of the intoxicating liquors usually imbibed on that day, the mob might turn itself loose on the "foreign devils."

The first of June passed very quietly, although foreigners were not seen on the streets in great numbers. I took a walk down Legation Street and noticed, in addition to the European and Japanese sentries, each legation had a guard of Chinese soldiers encamped at its gate. These were small young men, whose spears were tied in stacks while they spent the days lolling around. It was a mere sham of a guard.

The purpose of this first journey to Peking, in which Naval Cadet Courtney had participated, was to provide a small force of guards for the foreign legations at the Chinese capital. The legations guard, consisting of some 50 Marines and three bluejackets under Marine Captain Meyers (and later, Captain Hall), distinguished themselves in their valiant defense of the legations against overwhelming odds. From 20 June until 14 August the foreign legations were to be in a state of constant siege. Captain Meyers was wounded in a night assault on 3 July, and before the end of the siege, 30 per cent of the small American detachment had been killed or wounded.

Naval Cadet Courtney had departed from Peking with the commanding officer of USS Newark *on 2 June to return to the American ship at Taku. Captain McCalla was headed for a series of conferences which were to culminate in the first of two campaigns to bring sizable reinforcements to protect the legations.*

On 4 June the railroad connection to Peking was interrupted, and in the ensuing days reports of the communications facilities to the capital indicated that the situation was very grave. Naval Cadet Courtney continues his report:

JUNE 5—After a day on the ship I left it again with another landing party on the morning of the 5th. Tangku was crowded with Chinese troops who were on the way to the stations along the railways north of Tientsin. Our detachment had a car attached to one of the sections of the Chinese train. Our interpreter informed us that they shouted at us "If the Boxers can't drive you out, we'll help them." These soldiers were armed with excellent rifles of the most recent make.

The Tientsin Club at that time was the center of rumors. Our lookouts were posted in towers and at night our force was camped in a dusty lot facing a Chinese village. Soon the whole settlement was entirely surrounded by the outposts of the Foreign Nations. The Club soon had it reported that the Boxers were crossing a bridge two miles from the settlement. Although subsequent lookouts proved that the Boxers were at that time 18 miles away, the situation was red hot.

The residents considered that the greatest danger was in the proximity of the Chinese troops encamped along the mudwall to protect the Settlement, and we certainly kept a sharp lookout for them during the darkness. Armed parties of sailor and citizen volunteers constantly patrolled the streets. All Chinese had to carry lanterns and none were admitted into the Settlement after sundown.

JUNE 9—Today, the British and American Ministers sent telegrams to their commanders in Tietsin to say that they should move on Peking, in force, and reopen the railway line which had not been run for two days, Sir Claude McDonald's telegram adding, "or it will be too late."

While the Viceroy was deliberating on the request of the commanders for a train, Captain McCalla and Commander Granville of *Centurion* were scouting around the station finding out what was to be done in the way of seizing locomotives and cars, should they be refused. At ten o'clock Captain McCalla sent word to our camp to have 25 bluejackets under me ready in light marching order and three day's provisions in our haversacks. We fell in and waited until 1 o'clock when word came to turn in for the night.

JUNE 10—Commander Granville came along at daybreak with news of the Viceroy's permission for the train being granted. Our whole force of 112 was marched to the station, ammunition and provisions following under the charge of the paymaster.

The British Marine and ourselves arrived about the same time, and we found there a train full of British Marines and bluejackets under Vice Admiral Seymour. Captain Jellicoe of the Battleship *Centurion*, the Admiral's Chief of Staff, happened to be at Taku when the telegram from the British Minister arrived. He went on board the destroyer *Fame* and signalled with the flash of a search light on the clouds to the British fleet to be ready to send landing parties ashore with 6-pounders which were unbolted from the decks. When the Admiral returned, some of the British were taken off and the Americans were put on the train. Before our train hauled out, there were troops representing the leading nations of the world around the station.

The Boxers had done a good job of destroying the railroad tracks and equipment between Tientsin and Peking, with the intention of isolating the members of the foreign legation. Now the rescue party, numbering 2000 men of several nations with British Admiral Seymour in chief command, could expect increasing oppo-

QUARTERMASTERS AND SIGNAL APPRENTICES pose before pilot house of *USS Newark* during China uprising.

DURING BOXER uprising in 1900, United States Marines landed at the Taku forts in native-manned sampans.

sition. It took the force two days to cover a distance of 34 miles, fighting and re-laying track as they advanced toward Peking.

THE LAST of the Chinese soldiers were passed at Yanghsun and a short distance beyond that place we started repairing the railway. When darkness came on we were making foundations for a bridge near Sofa. Under the bridge lay four Chinese, their bodies punctured with bullets. The spreader plates of the bridge were indented by high-powered bullets. It had been reported in Tientsin that Nich had met the Boxers and defeated them, killing 500 near Sofa. So we were undoubtedly at the scene of this battle, [but] there were four, and not 500, victims as reported.

Our pickets were posted along a mudwall about four hundred yards from the train. An English bluejacket happened to discharge his gun by accident and the allies had their first alarm. Our guns were stacked alongside the car and we were soon rushing over the fields in a skirmish line without finding an enemy. When time came to reorganize our picket, four men were missing. They were the four men on the mudbank, the only sentries that had stuck to the post.

JUNE 11—A few miles beyond Sofa, the Boxers delivered their first attack. A few Marines a short distance ahead were fired upon, and soon the British on one side of the track and the Americans on the other side were rushing forward in skirmish lines. It was not much of a fight.

Four sections went through the village from four sides. My section had to go through from the opposite side to the railway, and seeing some Boxers, I started to go after them, but came back after thinking over my orders.

We formed a skirmish line and started over the country after them, but after going a short distance it was apparent that we could not close on them and we returned to the train. We were immensely superior in force to the Boxers that day, but we were just entering the Boxer country. Peking was fifty miles distant.

JUNE 12—On the 12th the trains arrived at Lang Fang and with the exception of the construction train, they never succeeded in getting further. It had been terrible work in the hot sun laying the tracks, and work had to be suspended between 10 and 3 o'clock every day. Beginning at this point the proposition simplified itself; we were given the roadbed and we had to build a railroad.

The day of our arrival at Lang Fang an old decrepit Chinese walked into the lines and was found to be a courier from Peking. He was the only one of three couriers sent out that succeeded in reaching the trains, but this old man looked so weak and harmless that even a Boxer would not touch him. We learned that our departure had been reported via the Shanghai Kuan Line, and that line and the one via Siberia had been cut, isolating Peking from the rest of the world; that the Chinese were getting excited and General Fung was preparing for war upon the column. This was inspiring news and the expedition got interesting. At midnight our courier disappeared in the direction of large bands of Boxers which he had reported, carrying back to Peking messages from the eight commanding officers to their Ministers that everyone was working with zeal and energy to reach them.

It was decided that the railroad should be left at Anting, 25 miles south of Peking, whence a forced march would be made on the capital. Therefore, draft animals for our ammunition would be desirable.

JUNE 13—About four in the afternoon I was sent out with a foraging party of seven men with orders to get asses and carts. The squad advanced through two villages and examined several houses. As usual, both villages were entirely deserted by their populations. Out of the other end of the further village, however, a man on a jackass and several on foot ran across a clearing to another village a mile or so further on. The ass baited us on to follow him. The village towards which we were marching was almost shielded by a wood of high trees. The outer line of trees was liberally sprinkled with men. This was a different experience from deserted Boxer villages, and I thought that we would have to fight for any animals owned by that village. A quarter of a mile from the trees we saw no Chinese whatever.

We stopped to fix bayonets and load with chamber empty. I had taken a step into the wood when a loud cheering started up and a rifle bullet threw up the dust a few feet in front of us. Directly to the front 70 or 80 yards distant was the enemy, flags waving, spears and swords brandishing. On their left on a bank in the rear were six or eight men, muffled up in peculiar garments. On their right was a road down which they would have to advance to get at us. Close-range work with fully 150 fanatics was not desired, as it could have but one result. The heads of the center and left of the company were the only things to be seen, a field of high grass shielding the rest of them from view.

To retreat then would have them on us from all sides, so we decided to see the affair out. To make them believe that we were also anxious for a hand-to-hand fight, we advanced toward them about 15 yards. We had quite a large pile of them at the entrance to the road but they continued cheering and were full of fight. When they started for us again, we advanced to the edge of the wood with only about 40 yards of the road between us. Our seven rifles and my revolver kept shooting into the pack as fast as we could, and they all stood it for a minute or so; then they all went together to their left and rear, disappearing in a yard.

JUNE 15—At ten in the morning, the Boxers made as grand a charge upon the train as I ever expect to see again. When the pickets fired the first shot, I was in the next to the last car of the first train. Most of *Newark's* men were ahead with the armed car, building a bridge. Meeting the British Marines coming in from the trees on the left, who were under orders to go to the train, I ran along the trees to the locomotive. There was

no firing, but the stream of pickets left no doubt that something was about to happen. Maycock and myself ran down the track ahead while some British bluejackets went back to alarm the train. Suddenly the whole grove was a rushing mass of red, and down the track they came with uplifted swords. Those on the track were following an Italian picket. They all ran faster than the picket and a large fleet man quickly overtook him. The uplifted sword felled the man in one stroke while we were yelling for him to turn and shoot. Stopping a second to hit him three more times, the big Chinese still in the lead in the race down the track. We kept retreating toward the train turning to fire our revolvers and one of us had the satisfaction of dropping the leader.

They paid no attention whatever to the rifle fire directed at them from the few men outside the train, some one having passed the order to keep inside the cars.

As we stood at the cowcatcher firing our revolvers, the captain of *Centurion* came along with a seaman who planted a Maxim gun in front of the locomotive and began getting it ready, while the firing from rifles steadily increased but the Boxers kept on coming. Their advance was within 15 or 20 yards of us when the Maxim started up with a roar. Almost instantly, it seemed that the whole advance was thrown dead upon the ground. The rifle fire was now quite heavy and those in the rear, seeing the fate of the leaders, stopped. On the left of the track two Boxers found that they had escaped the Maxim but were cut off from their fellows. One of them rushed on Capt. McCalla but the captain coolly shot him down.

JUNE 15—One of the banners picked up on the field of battle on the 14th contained a Chinese inscription which was translated by the Japanese to read: "Kill the foreigners by order of the government." We all felt that we would have a hard time entering Peking but no one thought for the moment of the expedition failing to accomplish its object. Our old messenger returned with information of a military character: Ting, the Chinese general, only had light batteries of artillery and his 10,000 foreign-drilled troops armed with Mannlichers were only a part of the force which would be opposed to us.

A construction train with Americans and British was sent ahead while the other trains were kept next to the water supply at Lang Fang. The British Marine kept guard while the jackies and coolies worked on the railway, all under Capt. McCalla. On June 15th, the train had repaired three or four miles beyond Lang Fang. That night about 9, four men and myself, all armed with rifles, marched back to Lang Fang with dispatches for Adm. Seymour. To my surprise, instead of being challenged or more likely shot at by the pickets, we were challenged by the crew of the six-pounder in the car ahead of the locomotive. All the pickets had been drawn into the platform of the cars. There had been two alarms. The garrison of *Endymion's* bluejackets at Sofa, had withdrawn in consequence of the immense numbers of the enemy appearing around their "Fort."

The most important news was that the train which had started for Tientsin had come back, reporting the track torn up. While a conference of commanding officers was deciding that our communications with Tientsin must be restored before the advance could be continued, the lookouts from the water towers reported the enemy on both sides. Then came the order for our train to go back toward Tientsin and repair the break in the line.

JUNE 17—On the afternoon of the 17th, our old courier arrived for the third time from Peking and brought the last messages we received.

It was to the effect that the government was powerless, even if it wanted to put down the Boxers. They were killing openly in Peking and had murdered all the native Christians they could lay their hands on. When the letter was being written, there were six burning buildings around the legation.

The force of 2000 men now found itself cut off on both sides. Imperial Chinese troops had openly joined the Boxers in opposing the rescue party, and the rail lines to both Peking and Tientsin were severed. The rescue party decided to fight its way back to Tientsin where a later attempt could be made with larger reinforcements. The fighting grew heavier. Nearly a third of the 112 Americans in the rescue party were casualties.

JUNE 18—It was learned that the attempt to reach Peking would be given up. Now that open warfare had commenced, 2000 men of eight different nationalities could not possibly force a way through the batteries of artillery, machine guns and repeating rifles of 5000 well drilled troops that would be pitted against them. As the tracks were torn up in the direction of Tientsin as far as the eye could see, it was resolved to put the wounded in junks and descend by the river route.

JUNE 24—Efforts are constantly being made to communicate with Tientsin. The Vadm offered any Chinese $400 who would take a message to Tientsin and bring back a reply. Several of the servants attempted it, but only one succeeded. We threw into the air some Very signals from our outfit and they were answered in the direction of Tientsin, so we felt sure that the Chinese had not captured the foreign concession at that place.

The small force fought its way back to Tientsin where, after a number of engagements with large Chinese forces, an international army of 18,600 men, including 2500 Americans, was assembled. Starting out in August this force fought a series of battles to reach Peking. To the personnel, their families and the guards the welcome sound of machine guns in the distance finally indicated that relief was at hand, and on 14 August American troops scaling Peking's towering East Wall were the first to enter the city to relieve the beleaguered legations.

NEWARK'S CREW repair track 36 miles from Peking. Railroad served as link between coast and Imperial City.

TAFFRAIL TALK

We think that we've learned our lesson and, we hope, you won't find us making any rash comparisons. We're pretty careful about claims as to the *first, biggest, longest, shortest, newest, oldest,* or *most.* We were a little rash in our statements in that "more strawberries than beans" tale in the May issue and we're still hearing about it. (See page 27).

Nevertheless, we feel we can safely make reference to Leroy Everybody Talks About. The owner of the name is a full-blooded Blackfoot Indian, a native of Montana, and a newly-graduated product of NTC, San Diego, Calif.

Mindful of another Indian who found the appellation "Shrieking Loud Train Whistle" so distressing he took legal steps to have his name changed to "Toot," we couldn't help but wonder how Leroy felt about his. It seems that he's happy about it all, even though the name does take two lines when he stencils clothing and won't always fit in the signature spaces on many Navy forms.

"The name's been in the family for a long time," Leroy explains, "ever since the early days when my ancestors roamed the plains of Montana, so I'm proud of it and don't want to make any changes."

We understand he's quite content without a middle name.

★ ★ ★

The Navy is changing rapidly and so is the staff of ALL HANDS. Here's a roundup of changes wrought during the last few months. The Art Department, for example, has undergone a complete overhaul, with Thomas R. Patrick, DC1, USN, and Hugh E. Bradshaw, SN, USN, replacing Jack Wing, DM2, USN, and Ed E. Nichols, JO3, USNR.

Pat, as the old-timers may recall, is practically a plank-owner of ALL HANDS, having manned a drawing desk from 1950 to 1953. Bradshaw, a native of Massachusetts, was gleaned from the editorial offices of *The Collective Pitch,* HTU-1, of Ellyson Field, Pensacola, Fla., after the editors of ALL HANDS had watched his work with admiration and envy.

Wing, with his photogenic family, is indoctrinating the 10th Engineer Construction Brigade, Pearl Harbor, in ALL HANDS' style, and Nichols is seeking fame and fortune as a civilian artist.

H. George Baker, JO1, USN, warms the chair earlier occupied by Bob Ohl, JOC, USN, who, on board *USS Wisconsin* (BB 64), is now learning how the other half of the Navy lives. Baker is a veteran of many a journalistic battle of ComSubPac, Pearl Harbor and, earlier, in the PIO eyrie at the Naval Academy.

Delbert Cass, SN, is understudying Roy Reitz, YN3, USN, in the research department as Roy prepares to return to the cow country of Nebraska. Cass was on TAD orders in Washington, D. C., when ALL HANDS heard of his talents and drafted him.

The All Hands Staff

The United States Navy

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

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• AT RIGHT: AND AWAY WE GO— *USS Perkins* (DD 877) leads formation of ships of Destroyer Division 11 through waters of the Pacific.

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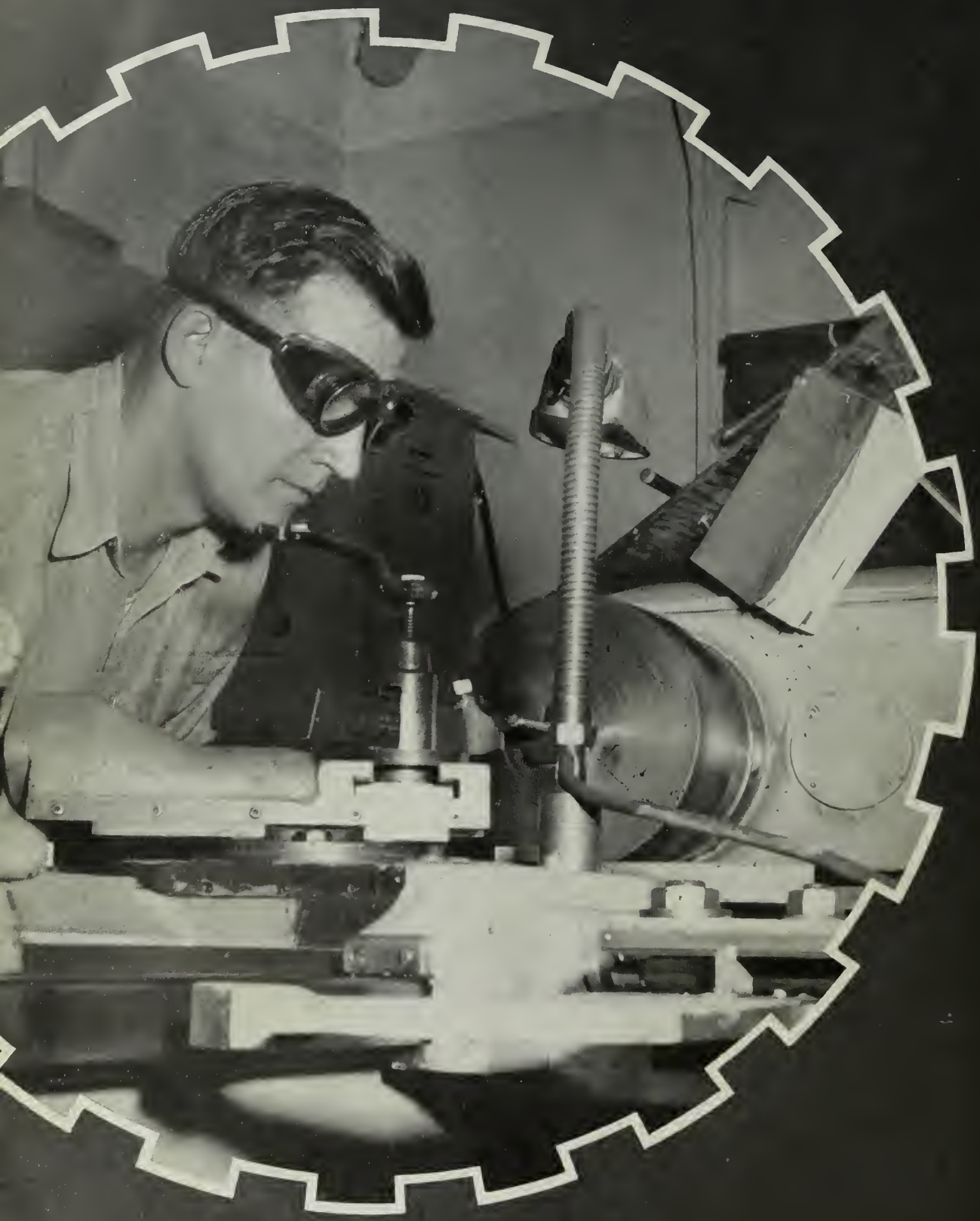
SAFETY IS A NAVY SKILL



KNOW YOUR JOB AND DO IT SAFELY...

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

This magazine is intended for 10 readers. All should see it as soon as possible. PASS THIS COPY ALONG

NOVEMBER 1956

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

NOVEMBER 1956 Nav-Pers-O NUMBER 478

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• **FRONT COVER: IN MANEUVERING ROOM of radar picket submarine *USS Requin* (SSR 481), N. F. Allard, EM2, USN, adjusts speed of submarine engine from port control cubicle.**

• **AT LEFT: FAN TAIL TO OLYMPICS—Cruisermen gather aft on USS *Los Angeles* (CA 135) as fighters wait at ringside. A win here could mean a start up Navy's sports ladder and a chance at future Olympic trials.**

• **CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated. Photo top left page 36 by Navy Times. Lower right photo on page 17 by Popular Science Monthly Magazine.**

The Enemy in Your Ship

FIRE! FIRE! FIRE! Fourth Deck, Frame 16, Port Side, CPO Storeroom!"

The acey-deucy board goes flying, men dart from the showers and out of the library. They spring from their racks, and come from the shops, offices and every compartment throughout the ship.

"What a time for a drill, just when I was winning," mutters an unseasoned seaman as he drops the dice and stumbles over the acey-deucy board. "Drill, drill, drill, that's all the ole man ever thinks about."

"Take the lead out," comes an order from a chief down the passageway. "You don't see smoke coming out of a vent during a drill. This is the real thing, let's go!"

These reactions are typical. Whether it's a drill or the real thing, all hands swing into action the instant the fire alarm is sounded. From the boatswain's mate to the ship's yeoman, from the engineman to the gunnery officer—every man aboard ship has a role when it comes to fire fighting.

Maybe you find yourself with the task of actually fighting the fire or merely standing by at quarters in the event you're needed, or maybe it's just for drill. In any event, every man aboard—and ashore—knows it's important to follow the drill instructions on the double.

Like all seafaring men, Navymen are quick to realize the dangers of fire. Yet, despite the record of the Navy in fire fighting and fire prevention, fires are not uncommon in the sea service. In fact, they occur much too frequently. During the last year alone, Navymen had to fight on the average of more than one fire an hour, 24 hours a day, every day throughout the year.

With more than 9440 fires occurring within the naval establishment in one year, it's evident why every Navyman is required to be a fire fighter.

In a war against any enemy, knowledge of what that enemy can do and how it operates is a vital factor in determining strategy and tactics. It's the same with fire. And the sharp Navyman goes to a fire with an understanding of its make-up.

- He knows, for example, that before a fire can start there must be *heat, fuel,* and *oxygen.* All three of these elements are required and without any one of them, fire will not exist.
- He knows that if air is diluted sufficiently or if the oxygen is taken from the fuel, it will not burn. In fighting fires aboard ship, it's usually impossible, except in rare cases, to put out a fire by removing fuel from the heat and oxygen.
- It is upon this simple formula—that is, removing any one of the three elements of heat, oxygen or fuel—that all methods of fire fighting are based.

In addition to an understanding of the chemistry of fire the Navy fire fighter must have a knowledge of the equipment and agents used for extinguishing fire. He does not pick these things up over night. It's the result of hard work and training which begins as soon as he enters the Navy.

Teaching fire fighting during recruit training is not thrown in just for excitement or added work. Experience in peacetime and even more so during wartime has repeatedly proved the value of teaching the know-how of fire fighting, and it starts the day a man hits boot camp.

Even with the many changes made in the Navy during recent years, things haven't changed too much in regard to fire fighting. During recruit training today, more than 25 periods are devoted to fire fighting. It's stressed regularly thereafter throughout your naval career,

FIRE, in peace as well as war, is a potential enemy of Navymen afloat and ashore. Navy schools teach techniques of how to prevent, control and fight fire.

EVEN THIS wartime blaze aboard USS *Franklin* was brought under control by fast acting, well trained crew.

by means of continued drills and at special fire fighting schools.

The Navy maintains seven schools for teaching fire fighting in addition to those at the recruit training commands at Bainbridge, Md.; Great Lakes, Ill.; and San Diego, Calif. Five of these schools are conducted by Fleet Training Centers at Newport, R. I.; Norfolk, Va.; Charleston, S. C.; San Diego and Pearl Harbor, T. H. Each present two and five-day courses.

The other two fire fighting schools are at the Naval Schools Command, Treasure Island, San Francisco, and at the U. S. Naval Damage Control Training Center at Philadelphia. These activities conduct the same two- and five-day courses as the Fleet Training Centers, as well as a six-week course for instructors, and other specialized fire fighting training.

The six-week instructor's course is for personnel who will teach fire fighting aboard ship, at the Fleet Training Centers or the Recruit Training Commands. It also provides advance training for personnel in the Damage Controlman rating and for Reserve personnel with the emergency service rating of Fire Fighter (ESF).

At Philadelphia, a five-day course of instruction is also given on fire fighting aboard aircraft carriers. This course is for personnel attending the Class A Aviation Boatswain's Mate School. In addition, a two-day course is presented there for submariners and other fleet personnel on the use of oxygen breathing apparatus and 15-pound portable carbon dioxide extinguishers under adverse conditions.

INSTRUCTORS show how to squelch compartment fire. *Below:* Fire-fighter students turn spray on fire below.

More than 45,750 enlisted men and 2800 officers were trained during the last fiscal year at the Navy's seven fire fighting schools. This is in addition to the fire fighting training given to all new recruits at boot camp.

No matter how much fire fighting is practiced, it stands to reason that the most logical approach to combating fires is to prevent them. Fire prevention is a habit in the Navy, and in most cases, it's taken for granted. Little does the average Navyman realize that "good housekeeping" — that is, keeping gear properly stowed, and keeping working, living and recreational spaces shipshape at all times — is one of the best methods of fire prevention.

A carelessly tossed match or cigarette can cause a shipboard fire as damaging as one started by enemy action. So can the thoughtless act of turning on a switch or using an electrical tool in a compartment filled

OBSERVANCE OF safety rules to prevent fires and readiness to act quickly if fire should happen to break out are best ways to keep down the damage.

with an explosive vapor. A cleaning rag saturated with oil or grease that is left improperly stowed and in a position to generate heat can equally threaten a ship and its crew.

These are common causes which make it easy to see why every member of the crew has to be conscious of fire hazards and on the alert to starve fire to death before it gets a chance to start. Precautionary measures, however, are of value only if they are part of the daily routine and are observed around the clock.

Regardless of how many preventive measures are taken, it must be admitted also that all fires cannot be prevented. Since this is the case, it is extremely important to know just what to do when a fire occurs.

• The first man to discover a fire should NOT stop and attempt to fight the fire but should turn in the alarm *immediately.* In many cases large fires have developed and serious damage inflicted because individuals tried to put out small fires by themselves and had the fire get out of hand before turning in the alarm.

• After notifying the OOD or damage control central, the man at the scene then does whatever is possible to check or extinguish the fire until the fire party arrives. When the OOD or damage control central gets word of the fire, they take immediate steps to notify the crew. This is done by sounding the general alarm, passing the word over the ship's general announcing system and on all sound-powered phones and ringing the ship's bell.

• In announcing a fire over the ship's voice circuits, the word "fire" is repeated three times, followed by the deck, frame number, side of the ship and the number and name of the compartment in which the fire is located.

As soon as this information is announced twice, the ship's bell is rung rapidly ten times and then followed by one, two or three distinct strokes. These strokes indicate the location of the fire: one means forward; two, amidships; and three strokes is the signal that the fire is aft.

Upon hearing the alarm all hands immediately respond. Every member of the crew from the newest man aboard on up to the commanding officer has a definite role. Each one knows what he should do and where to go; what equipment is available to fight fires, where it's located and how to use it. They know these things because the safety of their ship and shipmates depend upon them, as well as how quickly they respond to the alarm.

Fire parties aboard ship are organized into three sections. The section on watch remains at its post, the one just relieved goes to the fire, and the oncoming watch falls in at quarters as the stand-by section.

Upon arrival, the executive officer takes charge and directs the fire fighting operations. The OOD stands by the bridge or quarterdeck, while the gunnery officer stations his men by ready-boxes or magazines in the event it's necessary to move any explosives from the vicinity of the fire.

In responding to the alarm, the Navy fire fighter does not rush to the fire and expect to extinguish it according to any blueprint or formula. Fires are unpredictable and no two burn alike. Therefore, as the fire unfolds its inevitable surprises, the fire fighter may be required to make a number of split-second decisions and change his methods of extinguishing the fire.

Before the fire fighter goes into action he must know where the fire is located, what is the extent of the fire, that is, what are its effects on the surrounding areas, and what is burning.

Information on the location of the fire is always given when the alarm is first sounded. In determining the extent of the fire and deciding upon what conditions will be produced by the fire, the fire fighter must take into consideration the whole situation. He must determine what's in the compartments on each side, above and below the fire, what vents go into that area, and what electrical and fuel lines are in the vicinity of the fire. Realizing all these things, the fire fighter may be

DRILLS AND PRACTICE produce good fire fighters, saving ships and lives. *Below:* Gas job calls for readiness.

faced with extiguishing two or three fires instead of one, and each may be of a different type.

Information as to what is burning can usually be determined by the compartment in which the fire is located. All compartments and doors are marked with identifying letters to indicate what they contain and what the space is used for. These letters are the same on all ships and are always painted outside each compartment or door.

The Navy classifies the different types of fires according to what is burning. The different types of fires are divided into groups called classes. These groups, and the methods of fire fighting, are:

• ***Class A***—The distinctive feature of this type fire is that the embers or ashes remain after burning. The burning of bedding, clothing, wood, canvas, rope, paper and other types of combustible materials which leave ashes or embers make up Class A fires. To extinguish this type fire, the ashes and embers must be cooled below the point of ignition.

• ***Class B***—The burning of oil, grease, paint, turpentine and other inflammable liquids constitutes Class B fires. These fires leave no ashes or embers and consist of burning vapor on the surface of the liquid. Class B fires are extinguished by smothering.

• ***Class C***—This class is limited to electrical fires. Extreme caution must be taken when extinguishing Class C fires. It is essential to de-energize the circuits before you start to fight them and the use of "non-conducting" extinguishing agents is of great importance.

Each class of fire must be combated in a different manner. Water, a cooling agent, is best suited for putting out a paper or wood fire, but will ruin electrical equipment and cause short circuits. If used on oil or gasoline fires, water will spread the fire.

Class A fires are best extinguished by cooling, Class B by cooling and smothering and Class C by smothering. The agents used for cooling and smothering include plain water, or water in the form of fog and steam; foam, and carbon dioxide (CO_2).

The Navy maintains many types of appliances or different kinds of equipment for applying cooling and smothering agents to fires. Some of these appliances are built in the ship during its original construction, while others are portable. Standard fire fighting gear includes the following:

Fire Main Systems are built in naval vessels and through a system of piping provide water pumped from the sea to fire plugs and sprinkler systems throughout the ship.

Fire Plugs are located at strategic points along the fire main system. On large ships they are positioned so that at any point aboard can be reached by 100 feet of hose from two or more fire plugs. On smaller ships they are located so any point can be reached by 50-foot lengths of hose.

Fire Hose is in effect an extension of the fire main system. Standard Navy fire hose is double-jacketed—cotton, and rubber-lined. It is either 1½, 2½ or 3½ inches in diameter and eomes in 50-foot sections called "lengths."

All-Purpose Fire Nozzles can produce either fog or a solid stream of water. Fog comes through the lower of two openings, while a solid stream shoots out above the fog outlet. It is controlled by a three-way lever for shutting off the water, administering fog and a solid stream of water. Attachments can be installed to produce high- or low-velocity fog.

ON LAND AND SEA Navymen put fire-fighting skill to work for others, such as stricken tanker and wrecked truck.

Sprinkler Systems are installed in magazines, turrets, handling rooms, and other spaces where flammables are stowed, and in hangar areas aboard aircraft carriers. These sprinkler systems operate from the fire main and are non-automatic. They are controlled by valves which must be turned on by hand.

Fixed Fog-Spray Systems are built in such ships as oilers, tankers, transports and aircraft carriers where there is danger from gasoline fires. They are built in the overhead and have fixed piping fitted with fog heads. They are not automatic and must be connected with any 2½-inch hose or fire plug.

Foam is produced by a liquid foam-making solution which is introduced into the water stream. The solution can be introduced at the nozzle, at the suction side of a handy billy pump, or at any point in the hose layout or fire main system. The foam blanket produced has wide coverage and spreading ability.

CO_2 Extinguishers are steel cylinders containing carbon dioxide under high pressure. Some of these cylinders are single, portable cylinders, with a short hose and horn-shaped outlet. Others are installed, usually in batteries of two or more, and are fitted with either a length of reeled hose and horn outlet or fixed piping.

When carbon dioxide is released from the cylinder, it expands rapidly to many times its stored volume. In consequence of this rapid expansion, it is reduced to a temperature of 110° below zero (F.). The liquid vaporizes and forms carbon-dioxide gas, while some of it forms snow. However, even with its low expanding temperature, the cooling effects of CO_2 are very slight. Carbon dioxide is utilized primarily to smother fire. It is an excellent smothering agent because it does not support combustion. If applied promptly, carbon dioxide is effective on burning oil and other Class B fires. It is the most effective agent for fighting electrical fires as it is a non-conductor of electricity and will not damage sensitive electrical equipment.

Handy Billy and P-500 Pumps are portable, complete with gasoline engine, fuel tank and other accessories. They are primarily intended for emergency use in the event the fire main ruptures or loses its pressure. They are quite often used for such other jobs as removing water from flooded compartments or bilges.

Protective Equipment. To protect personnel while fighting fires, the Navy has multi-purpose oxygen breathing apparatus, air-line hose masks, life lines and asbestos suits. The Navy is in the process of replacing the asbestos suits with a new fiber-glass rescue suit which has much greater resistance to heat. Asbestos will not burn, but it does conduct heat. Thus the suits offer the wearer protection against flame for only short periods.

The effective use of this equipment, coupled with an understanding of the chemistry of fire and the extinguishing agents available, has repeatedly saved many ships and their crews. Among the most notable and heroic efforts in the Navy's battle against fire was aboard the aircraft carrier USS *Franklin* (CVS 13) in the closing days of World War II; aboard the USS *Boxer* (CVS 21) during the summer of '52 while operating off the coast of Korea; and the most recent, when fire and explosion rocked the USS *Bennington* (CVA 20) during operations off Newport, R. I.

In each case, the fires aboard these aircraft carriers broke out unexpectedly from catapult, gas tank or bomb explosions. No sooner had the fires started when fire fighters were in action. In each of these disasters, the fire fighters faced roaring flames, acrid smoke and danger of exploding ammunition to save their ships and shipmates.

The fires aboard *Franklin*, *Boxer* and *Bennington* are concrete examples of fire fighting knowledge and know-how paying off. These, and lesser incidents happening throughout the Navy every day, place additional emphasis on why every Navyman must be a fire fighter.

Fire is considered to be one of the Navy's worst enemies. No one wins in the fight against fire. It may be fought efficiently with damage held to a minimum but *any* fire means destruction and loss of property, time lost, routine interrupted and, on occasion, lives lost.

There's no peace or armistice in the Navy's fight against fire. It's a continuing struggle in which every Navyman, at sometime or other, may play an important role.

—H. George Baker, JO1, USN.

HOSPITAL CORPSMEN at Disease Vector Control Center NAS Jacksonville, study insects (left) and make tests.

PMU One Plays Big Role in Navy Battle against Disease

THERE WAS NO CAKE for Preventive Medicine Unit No. 1, located at NAS Jacksonville, Fla., when it recently celebrated its eighth birthday anniversary as a permanently established unit. It was too busy for such folderol.

PMU One is the Navy's only Disease Vector Control Center, serving an area which includes operative forces of the Navy afloat and ashore, Eastern Sea Frontier, in addition to its Sixth Naval District and Caribbean Sea Frontier responsibilities.

Back in July 1949, when the unit was commissioned as Malaria and Mosquito Control Unit No. 1, it consisted of a staff of three enlisted men and an officer-in-charge. At that time it pioneered in the development of "automatic aircraft disinfestation," and ultimately succeeded in seeing aerial disinfection equipment, devised in its own laboratory, installed in overseas aircraft and in hospital planes evacuating the wounded from Korea.

"MalMos No. 1," as it was known, also was a research center where many of the then new insecticides were first tested and tried. And it was a training center for Reserve entomologists, doctors and Public Works personnel of all military forces, who came here for refresher courses from all parts of the country.

In 1952 MalMos No. 1 was redesignated Preventive Medicine Unit No. 1, thus becoming identified with six similarly designated units, supported by the Navy, although it still maintained its original mission. That year it developed a multi-purpose insecticide-dispersing machine, known as "MIDA," by converting smoke generators installed during the war on the fantails of destroyers. A second converted machine is used today for both soil poisoning and surface treatment in termite control.

The operations section of the unit has chalked up its own record of service. During the Kansas City flood of 1951, personnel of the unit were sent to assist in insect and rodent control as hundreds of animals drowned in the stockyards.

On call around the clock, the operations section is still called upon to conduct field inspections, surveys, and investigations. When Putnam County, Florida, became infested with mosquitoes, for instance, the unit was requested to send planes and men into the area for aerial spraying to help relieve the situation.

In the "powder room" of the Center's field laboratory are stored thousands of dollars worth of equipment and poisonous powders, or dusts.

The Center's training mission has resulted in the instruction of Reservists of all military services, in addition to the innumerable active duty personnel attending the annual two weeks' conferences held there.

'POWDER ROOM' at DVC Center Field Lab holds poisonous dusts kept on hand for control of disease-bearing insects and rodents at NAS Jacksonville.

Enemy Around Your Ship

JUST ABOUT EVERYONE in the Navy has had a tour of duty with a chipping hammer and paint brush. At the time, you may have thought that the entire job was quite unnecessary and was only for the purpose of keeping you busy.

Far from it, sailor. You're doing a job that is of the utmost importance in the Navy's battle against corrosion. This battle has been going on for scores of years and despite our advances in nuclear weapons and jet aircraft, the victory over rust is not in sight.

The Navy is well ahead in the battle against corrosion but cannot let up in its efforts to stay ahead. The man directly involved in this effort is the person wielding the scraper, chipping hammer and paint brush. Once started, rust will spread unless checked immediately. Thus it is much easier to prevent the formation of rust than to stop it from spreading.

The battle against rust is not confined to the Navy, It is world-wide. In the United States alone, the cost from corrosion in one year is over six billion dollars.

The Navy, along with industry, is spending hundreds of thousands of dollars and millions of man hours, in its fight against corrosion. New type paints are being developed; new types of metal are being tested and produced; and new methods of preservation and maintenance are being applied.

Just what is rust? How does rust come about? Basically, rust is iron oxide. That's what you find when you analyze it. When you analyze natural iron ore, you find that it too, is iron oxide. In rusting, iron has reverted to its original state.

The Oxidizing Twins Fire and Rust Are Powerful Destroyers

The basic cause of corrosion is the instability of metals in their refined forms. Because of this, the metals tend to revert to their natural states through the process of corrosion.

Corrosion attacks different metals in various ways. The attack may be by general tarnishing or rusting with occasional pits in especially affected spots. It may develop near the junction of two different metals. Or the metal may have highly localized attack by pitting. Again, the strength of the metal may be destroyed by cracking induced by corrosion. Undoubtedly you have seen some or all of these types of corrosion.

The battle against rust is not new, by any means. Early in the 1800's, Michael Faraday studied the alloying of iron and contributed much to the basic knowledge of electro-chemistry. The famous English scientist, Sir Humphrey Davy, began the use of zinc to control corrosion in ships' hulls back in 1824. Dr. Willis Rodney Whitney, in 1903, concluded from his experiments that: "The whole subject of corrosion of iron is an electro-chemical process and the rate of corrosion is simply a function of electromotive force and resistance of circuit."

In simple words, this means that metals combine with the elements in which they are put to form an electrical circuit, and as a result, some of the weaker elements will corrode—oxidize, burn, or however you want to put it.

There are a number of ways to prevent corrosion. Naturally the ideal method would be to obtain a metal that is non-corrosive. Some of these metals are available, but they are: (1) too expensive (2) not available in quantity (3) not strong enough (4) create too many additional problems to be worth it.

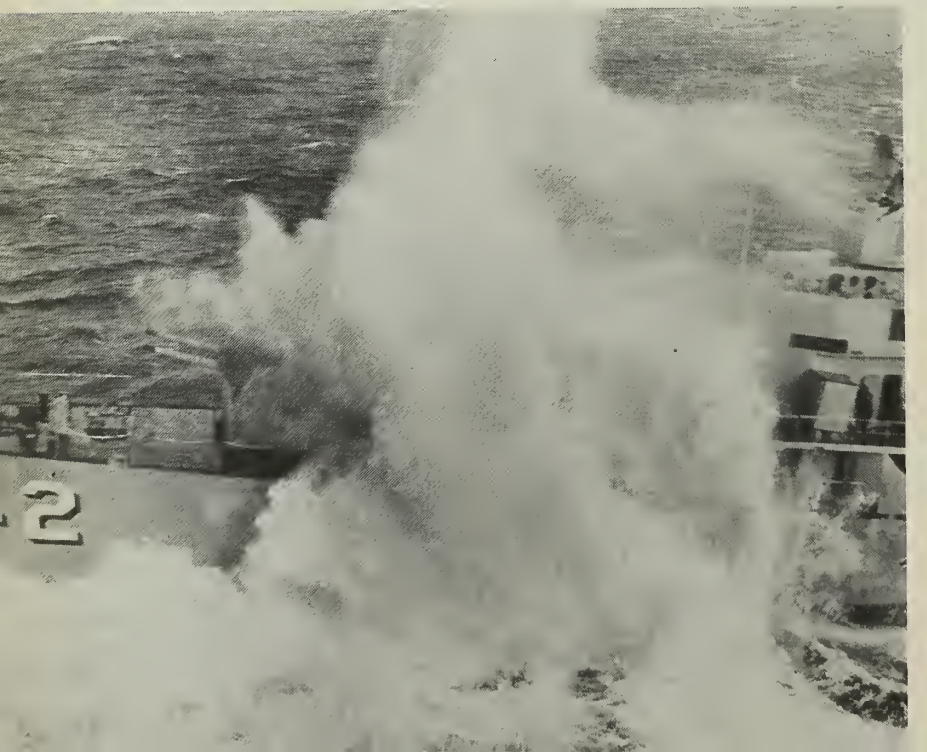
Platinum or gold will not corrode. But have you ever heard of a platinum or gold ship?

How about wood? True, wood doesn't rust but it presents hundreds of other maintenance and upkeep problems. Can you imagine having to caulk a ship the size of the 1039-foot USS *Forrestal*, if such a ship could be built?

One method used to protect against rust is to use an alloy of some type which is highly rust resistant. One of these alloys is made by mixing chromium with iron or steel. Chromium is known for its resistance to corrosion.

As little as 10 per cent of chromium mixed with iron or steel protects these from corrosion. This combination produces the famous "stainless or rustless" alloys. Thousands of articles are made from these alloys, from kitchen knives, surgeons' instruments and automobile radiators to watch cases. Take a look around your ship; you'll find many items

SALT WATER, whether descending by the ton as in photo below or merely condensing from airborne vapors, provides excellent conditions for rust.



that are made from these alloys.

Here again, it is quite impractical, for numerous reasons, to have a ship with a chromed hull. Some ships, however, do have rust preventives built into the metal that goes into the hull. This is particularly true of light-hulled ships such as destroyers, where the metal used for bilges is galvanized.

Even when galvanized, the surfaces are painted with underwater anticorrosive, red lead or zinc chromate primer in addition to the usual topcoats on surfaces exposed to sea water or weather.

Actually, the use of rust inhibiting paints is one of the big guns in the battle against corrosion. However, not all paints can be used in every situation. For example, the anticorrosive hull paints cannot be used to paint the inside surfaces of a gasoline tank.

In order to evaulate the suitability of new protective coatings and other methods of corrosion prevention, the Navy supports several laboratories engaged in this type of work. In addition to the coating properties themselves, such problems as methods of surface preparation and application are also being studied.

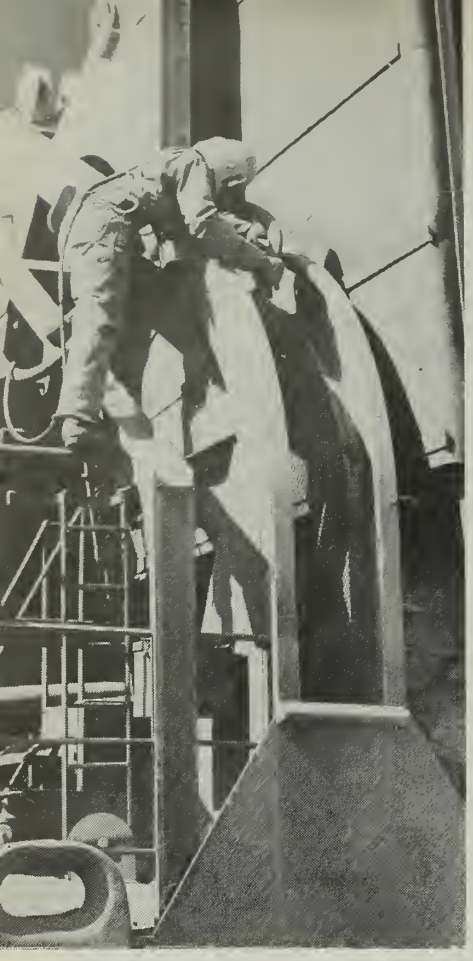
Some paints available would be ideal but, for application, the surface must be prepared so thoroughly as to make the process economically unsound. Other types of paint would be ideal too, except that the solvent ingredients are too volatile and flammable and safety prohibits their general use.

As one of the Bureau of Ship's corrosion engineers puts it: "The choice of whatever method used to prevent corrosion is, in effect, a compromise between what you're trying to protect, how you're trying to protect it, and the cost versus the amount of protection received.

"I can remember a few years back," continued the BuShip's expert, "when they would actually take rust from the tanks of a gasoline tanker by the bucketsful. At that time, the cost of corrosion in one gasoline tanker alone averaged $200,000 a year. Today, with new processes and special paints, this cost has been reduced drastically."

Another method of rust prevention used by the Navy is known as "cathodic protection." Here's a somewhat technical explanation of a process which is designed to divert the rust to spots on ships where it will cause least damage.

CHIPPING HAMMER and paint are still counted among the leading weapons against corrosion although research is being conducted for new methods.



THE SILENT invader is checked by whitehats chipping off old paint: *Left:* Sand blasting clears the way for protective paints while mothballing ship.

To begin with, the basic nature of corrosion is almost always the same—a flow of electricity between certain areas of a metal surface through a solution capable of conducting an electrical current.

This electrochemical action, according to the experts, causes destructive alteration or eating away of a metal at areas which are called anodes, where the electrical current leaves the metal and enters the solution. This solution may be either salt water or the moisture in the atmosphere.

In any electrical circuit, the experts continue, you must have both positive and negative electrodes, On the hull of a ship, these electrodes may consist of two different kinds of metal, or they may be different areas on the same piece of metal.

When the electrons (negatively electrified particles) leave the positive or anodic side of the circuit, and travel to the negative or cathodic side, oxidation and corrosion of the metal occurs *at the anode.* The result is—rust. Except for extreme cases, any given metal may be an anode or cathode depending upon its position on the "galvanic series" of metals and alloys. If you obtain a metal high on the list, it will act as an anode to any other metal below it.

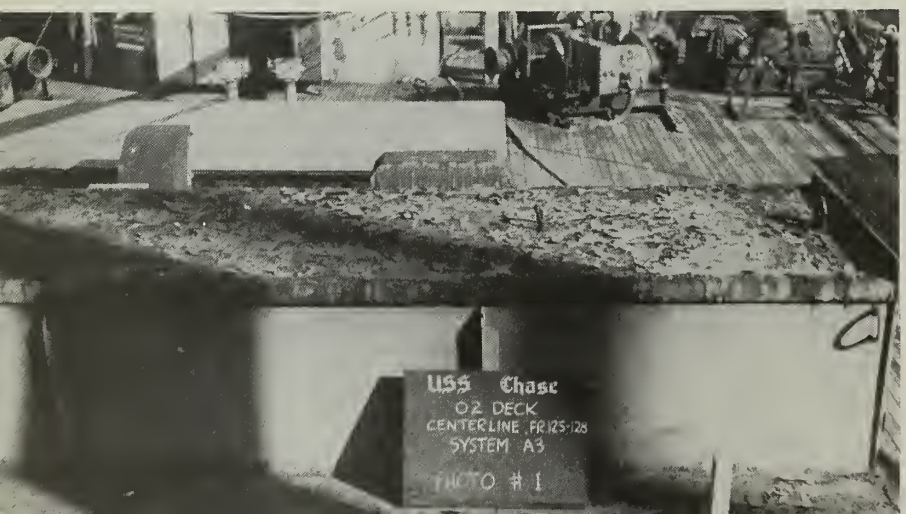
Cathodic protection is the process of making the metal that is to be protected electrically negative (or cathodic). This can be accomplished by means of an "impressed current," using a carbon electrode as an anode or by coupling a metal high on the scale to act as an anode for the metal on the ship which requires protection. The Navy uses these types of protection on many Reserve Fleet ships and on some active ships.

The so-called sacrificial anodes that the Navy uses to take the punishment of rust are usually made of magnesium, which is No. 1 on the galvanic series list. The anodes are attached to various spots on the hull and give the hull a certain amount of galvanic protection. What it all boils down to is this: *Instead of the hull of the ship corroding, the good old "sacrificial" magnesium anode serves as the victim and corrodes or burns away.*

The magnesium anodes used by the Navy vary in size from 7x7x16 inches (55 pounds) to 7x7x36 inches (100 pounds). These anodes are reduced to about one half their weight and size by the corrosive action within one year.

Ships in the Reserve Fleets present additional corrosion problems

FOR THE SKEPTIC — Here's what your ship would soon look like if care by crew was abandoned. This ship is being used to study rust prevention.



BEST WAY to stop the fast-spreading rust is to prevent its start by sealing metal from atmosphere with paint.

on metal surfaces within the ship. Before present methods were initiated, the interiors of these ships were given the usual preservation measures (which consisted mostly of a heavy coating of red lead with little or no preparation of the surface) coupled with the use of sacks of calcium chloride as a drying agent and periodic airing of the ships.

These measures proved inadequate to prevent the ravages caused by time and moisture. Often the metallic pans into which the calcium chloride dripped as it absorbed moisture and became brine would overflow and thereby aggravate corrosion.

However, these preservative measures did save about 200 overage destroyers, including the 50 transferred to Great Britain during the early days of World War II. Although they could stand improvement the preservation methods of that time had served to good purpose.

It was later found that the most economical method of preserving delicate machinery was to coat the ferrous, machined surfaces with a thin film of rust preventive compound.

As for the moisture in the interior, Captain H. Gordon Donald, USN (Ret.), came up with an answer. He had heard of the existence of a machine that was used to dehumidify the air in the holds of cargo ships to prevent perishable goods from spoiling.

Could this machine be used to maintain a relatively low humidity of about 25-30 per cent in mothballed ships? The answer was yes. Experiments proved very successful and this type machine is in use today.

In addition to this dynamic dehumidification system which circulates dry air throughout the interior of the ship and absorbs excessive moisture until the relative humidity drops to 25 or 30 per cent, static dehumidification is installed in the form of material containing a drying absorbent, such as silica-gel.

The exterior of the ship in reserve presents a more formidable problem for the rust battlers and only by constant chipping and painting is corrosion prevented. To aid in solving this problem, practically all topside equipment which could be detached and moved through the doors and hatches has been removed from topside and stored in the dehumidified space of the ship.

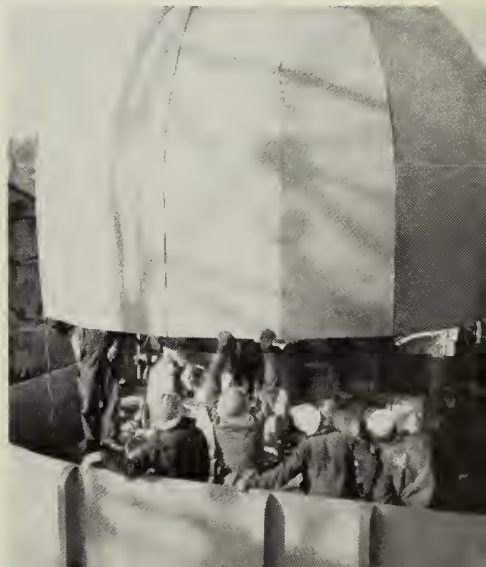
But the big battle against rust in both the Reserve Fleet and active Navy is waged by the man with the chipping hammer and paint brush. Better paints are being developed, better rust resisting metals are being compounded, but all corrosion engineers are in agreement that the end of the battle is not in sight.

Like the tireless sea, the forces that cause corrosion are at work 24 hours a day, every day of the year. You've seen productive machines, automobiles, and ships that were once the pride of the ocean, turned into piles of rusty junk.

Next time you're handed a paint brush or chipping hammer, or if you see a man working with one of these tools, bear in mind he's fighting one of the greatest battles faced by the Navy.

—Rudy C. Garcia, JOC, USN

NAVY HAS a big battle fighting corrosion in Reserve Fleet. Hoods help keep moisture from attacking mounts.



THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **EVALUATION WORK SHEET—** Commanding officers are reminded that the new system of enlisted performance evaluation (established as of 1 Jul 1956) requires careful preparation and review of the evaluation work sheet, and that all hands preparing work sheets must be thoroughly familiar with the workings of the program as set forth in BuPers Inst. 1616.4.

The need for careful preparation of the work sheet is emphasized by the fact that, beginning in August 1957, the results of such performance evaluations will be incorporated in advancement multiples, thereby affording each individual increased opportunity to advance his career through his actual performance of duty.

Evaluating and recording the over-all performance of enlisted personnel in accordance with BuPers Inst. 1616.4 is based on direct appraisal of each man by his immediate superior and review of such evaluation by the commanding officer. This method of evaluation is designed to: (1) emphasize individual performance of duty; (2) provide positive means of giving recognition for above-average and superior performance; and (3) grant proper recognition to the practical sailor of proven reliance and ability.

• **SOCIAL SECURITY CARDS —** Social Security Account Number Cards are required for all naval personnel, effective 1 Jan 1957, as a result of the Servicemen's and Veterans' Survivor Benefits Act which was passed by the 84th Congress and provides Social Security coverage for members of the armed forces.

All naval commands have been forwarded a supply of application forms for obtaining the cards and copies of BuPers Inst. 1741.8, which sets forth the procedure for obtaining and recording account number cards for personnel in the following categories: 1) Members currently on active duty, regardless of their expiration of enlistment or RAD date; 2) Midshipmen enrolled at the Naval Academy; 3) Members of other branches of the armed forces currently serving with the Navy; and 4) Members of the Coast Guard, Coast and Geodetic Survey, or Public Health Service who may be present at Naval activities.

Procedures for obtaining account number cards for prospective Navymen and for members not currently on active duty will be promulgated by separate instructions.

Social Security Form SS-5 (Application for Social Security Account Number) must be completed by each member who has never had a Social Security card or whose card has been lost or destroyed (*with the one exception noted below*). Navymen who already have a Social Security number and card but who do not have the card in their possession should obtain the card as soon as possible from whatever place it has been left for safekeeping.

In the exception to the above, personnel requesting a replacement for a lost card should use Form OAAN-7003 (Request for Change in Social Security Records) IF there has been a change in name due to marriage, divorce, court order, former use of a pseudonym, etc., since the original card was issued.

Form OAAN-7003 also should be used to correct or change information previously furnished the Social Security Administration.

• **ENLISTED RATING CHANGES —** Latest modifications in the enlisted rating structure will affect active duty personnel in ***Quartermaster, Aviation Electronics Technician,*** and ***Aviation Fire Control Technician*** ratings. Qualifications for advancement in these ratings will be announced in the near future.

Present assignment, past experience and qualifications as well as the command's revised allowance will determine whether Regular Navy Quartermasters will remain in the Quartermaster rating or switch to ***Signalman*** in an equal pay grade.

Active duty Reserve and Fleet Reserve Quartermasters holding the emergency service rating of Quartermaster will be changed to emergency service rating of Quartermaster (QM). If the active duty Reserve or Fleet Reserve Quartermaster is holding the emergency service rating of Quartermaster (S) (Signalman), his rating will be changed to the emergency service rating of Signalman (SM).

The changes in rating in the Quartermaster-Signalman are scheduled to be completed by 1 Mar 1957. Personnel competing in the November 1956 examination for advancement to QM3 will be the last to be examined on the basis of the old (combined) QM qualifications. As a result of the November examinations, personnel may be advanced to QM3. Personnel advanced to QM3 as a result of this examination may be changed to Signalman or be retained as Quartermasters on

LET'S get to the point! — Remember that nine other Navymen have to read this issue! — PASS THIS COPY ON!

or after the effective date of advancement.

Specific procedures for changing ***Telemen*** to *Radiomen* or *Yeomen* will be set forth at a later date; however, a gradual transition of approximately five years is anticipated. This period will allow Telemen to advance in pay grade while becoming qualified for the change in rating. Generally, Telemen who are performing communication type duties will eventually become Radiomen, and those Telemen assigned mailman duties will become Yeomen. The capabilities, experience, and desires of the individual will be given thorough attention but the needs of the service will be given primary consideration in making final determination of the rating to which an individual will be changed.

Reservists and Fleet Reservists on active duty in the ***Aviation Fire Control Technician*** (AQ) ratings will be changed to Aviation Fire Control Technician, Bomb Director (AQB) or to Aviation Fire Control Technician, Aircraft Armament Control Systems (AQF) emergency service ratings, while ***Aviation Electronics Technicians*** (AT) will be changed to Aviation Electronics Technician, Communication and Navigation Equipment (ATN), Aviation Electronics Technician, Radar (ATR), or to Aviation Electronics Technician ASW (ATS), as appropriate.

Background information on the rating changes is contained in BuPers Notice 1440 of 10 Sep 1956.

• **VOLUNTEERS FOR SUBMARINE SCHOOL**—Volunteers for initial submarine training are particularly desired from first, second and third class petty officers and identified strikers in the following ratings:

QM, GM, FT, RM, RD, SO, GS, EN, TM, ET, EM, IC, YN, CS and SD.

There is also a continuing need for Hospital Corps men in pay grades E-5, E-6 and E-7, as well as SN, SA, FN, FA, TN and TA.

At present there is no waiting list for any of the above listed ratings except FT.

Personnel in the Guided Missileman rating are especially encouraged to request initial submarine training which will lead to duty in guided missile submarines (SSG) and the possibility of assignment to nuclear powered guided missile submarines in the future.

Requests from exceptionally qualified MMs in pay grade E-4, E-5, E-6 and qualified strikers are currently being accepted in view of the requirements of the Nuclear Powered Submarine Training Program. MMs selected for initial submarine training must also meet the requirements and volunteer for the Nuclear Powered Submarine Training Program, as set forth in BuPers Inst. 1306.53A. However, four years' obligated service is not required for the initial submarine training.

It must be emphasized that personnel of the MM rating who are accepted for initial submarine training are not assured of being selected for the nuclear program.

Applicants ordered to initial submarine training are ordered to New London for an eight-week course.

Enlisted personnel may submit requests for initial submarine training at any time. There is no limit on how long an individual must be aboard his ship or station before requesting submarine training.

BuPers Inst 1540.2 B gives complete details regarding qualifications and assignment.

• **POST SERVICE NSLI** — If you're due for separation from the Navy before 30 Dec 1956, and want to apply for National Service Life Insurance on the post-service Five Year Nonconvertible Term Plan, you haven't much time left.

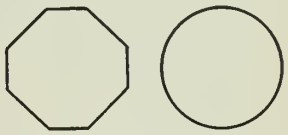
Formerly, veterans were allowed to take out up to $10,000 worth of this insurance (minus any NSLI or USGLI in force) anytime within 120 days after separation. Now, however, since new insurance laws will be going into effect 1 Jan 1957, under the Servicemen's and Veteran's Survivor Benefits Act (Public Law 881, 84th Congress), the Veterans Administration will no longer accept applications for the five-year term post-service coverage after 31 Dec of this year.

Applications from personnel concerned (which may not be dated earlier than date of separation) should be made out on VA Form 9-4356 and must be accompanied by a check or money order made out to the VA for the proper premium. If sent direct to the VA they must be postmarked by 31 Dec 1956, or if submitted to a designated insurance officer of the Navy or Marine Corps, they must be delivered to him by that date.

Details may be found in Alnav 42, containing advance information on BuPers Inst. 1741.3B.

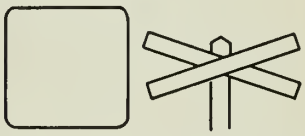
QUIZ AWEIGH

When someone mentions "Rules of the Road" to a Navymen, he immediately thinks of the rules which govern ship movements on the high seas. After checking Navy statistics on the number of Navymen who die on the highways because they didn't know or obey the land "rules of the road," it might be good if you reviewed or were introduced to these signs. Want some statistics? Last year, over 400 Navymen lost their lives because of traffic accidents.



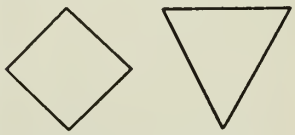
1. The octagonal sign on the left should be immediately recognized by you as meaning (a) proceed with caution (b) stop (c) reduce speed.

2. The round sign on the right will tell you that you're about to (a) enter a gravel road (b) cross over a bridge (c) cross over a railroad track.



3. All these illustrated "signs of life" have good information. The one on the left above will contain (a) traffic regulation and information (b) distance to next tavern (c) commercial advertisement.

4. The sign on the right is really easy. It indicates (a) truck entrance (b) dangerous intersection (c) railroad crossing.



5. Now this diamond-shape sign on the left should interest you. If it doesn't, you might wish it had. This sign always indicates (a) resume speed (b) caution, slow down (c) pass left only.

6. The result of not heeding the information on the sign at the right has been the cause of many a sailor's reaching the sick or casualty list. It means (a) car reaching intersection first has right of way (b) yield right of way (c) you have the right of way at all times.

You'll find the answers to this month's quiz on page 56.

The Saga of a Little Squir

EXCEPT TO THE knowledgeable old-timers, "storm oil" may sound like a recruit item—to be placed in the same category as bunk stretchers, striped paint, sky hooks, steam buckets and left-handed monkey wrenches. Not so. Oil has been used to calm stormy seas for thousands of years and at times is still used for that purpose.

At the time of the collision between the *Stockholm* and *Andrea Doria,* for example, oil was used to quiet the rough waters around the sinking Italian liner during rescue operations. And, as far back as the ancient Romans, sailors have known of the effects of storm oil.

Pliny the Elder, Roman naturalist and historian, wrote in the first century, A.D. that "oil calms troubled waters as soft speech soothes ruffled feelings."

The Venerable Bede, English monk and historian, also refers to storm oil in his *Ecclesiastical History,* written around 735 A. D. He tells of a young priest who was sent to a foreign country to act as escort for the bride of the King of Britain. When the priest was blessed by St. Aidan before the voyage, St. Aidan gave the priest a container of oil and told him to pour it on the waves if they began to get rough. They did, he did and the waves were calmed.

When Benjamin Franklin first read Pliny's writings on the subject, he took them pretty lightly, but the great American statesman, scientist and philosopher was not the kind of man to discard an idea without making sure it was wrong. So, in 1757 while sailing to England in a company of ships, Franklin asked the captain why the wakes of two of the ships were smoother than the others. The captain explained that it was probably because the cooks of the two ships had been pouring greasy water overboard. On his way back to America in 1762 Franklin also observed that the water in his hanging lamp was smoothed by oil and heard further accounts of the use of storm oil by divers and fishermen.

Back in England again in 1772, Franklin employed the principle of storm oil in a "practical joke" that will probably never replace the hot-foot. While strolling with friends, he pointed out a pond ruffled by the wind and told his companions that he could quiet its waters. He then walked over to the pond, waved his cane over it and uttered a few "magic" phrases. In a moment the choppy water subsided. Later, he

revealed that it was done with oil, sprinkled from the hollow top section of his cane.

The following year Franklin journeyed to Portsmouth with a group of scientists and explorers to demonstrate his water-calming prowess on the stormy English Channel off Spithead. Unfortunately, there were too many waves and too much water for the show to be a complete success, but thousands of experiments since have demonstrated that oil actually does have a calming effect on a rough sea. Whaling men noted this especially when they were cut-

ting up carcasses in stormy weather.

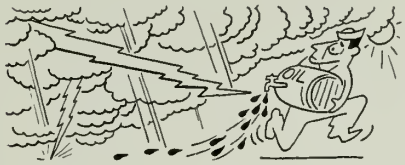
In about 1885 the Hydrographic Office asked all masters of merchant vessels to send in their views on the use of oil at sea. The experiences of these men indicated that a film of oil, spread over storm seas, prevents waves from breaking and holds back the development of small waves, thus leaving only the underlying swell in previously rough waters.

Of Storm Oil

With the appearance of more modern ships, storm oil lost much of its importance, but even today power-driven U. S. merchant ships of more than 200 gross tons are required to carry 30 gallons of it and those of 5000 tons or more must carry at least 100 gallons. The Navy no longer uses storm oil, as such, although diesel oil has been used at times for the same purpose. The most effective storm oils are turpentine and sperm, linseed, cottonseed

and olive oils. Soapy water is also good.

According to Knight's *Modern Seamanship*, storm oil "is particularly valuable when running with the sea abeam or before the sea, when launching or hoisting small boats in rough weather, for the passage of a bar or reef when the seas are breaking upon it, and finally for landing on a beach when the surf



is breaking well out and more than once. . . . The intelligent use of oil may be the difference between small and great damage to the ship and its boats at sea and the successful or unsuccessful landing on shore."

Knight's also says that in rescuing the crew of a wreck at sea, oil should be used freely in the area and rescue boats should be equipped with two small oil bags and a small tin of storm oil.

Since storm oil spreads out to a thickness of less than one 25-millionth of an inch, it takes very little of it to cover a considerable area. Just one pint will spread out over a whole acre of water surface. It may be distributed by pouring it over the side in small quantities from time to time; allowing it to drip over the side from punctured canvas bags which have been filled with oil-soaked oakum waste, kapok or cotton; or letting it drip from oil soaked oakum in the head scuppers.

Storm oil is also called sea-quelling, wave or wave-quelling oil, but no matter what you call it, the fact is that oil still calms troubled waters just as well in the 20th century as it did way back in Pliny's time.

—Jerry Wolff

Smooth Solution to a Slick Problem – Sink or Skim

Oil may be fine on a rough sea, but when it covers the waterfront of a shipyard, base or fueling station, it's a real fire hazard.

Although the Navy has sought for years to find cheap and effective means for removing dangerous oil slicks, these efforts have usually met with little success. Now, however, two very promising methods have been developed at the Norfolk Naval Shipyard, Portsmouth, Va. In one, oil is removed from the water's surface by a box-shaped barge called "The Norfolk Skimmer." In the other, ordinary sea sand or used foundry core sand is specially treated and spread on the slick so that it absorbs the oil and sinks with it to the bottom.

The skimmer is 25 feet long, 12 feet wide and slightly more than eight feet deep. At one end it has a more or less triangular sump that looks like a kitchen sink complete with drainpipe. The outboard edge of the "sink" is formed by a seven-inch dam, topped by a trash screen, and the "drainpipe" is connected to a centrifugal pump capable of handling up to 65,000 gallons an hour.

In action the dam is adjusted so that its top is just barely below water level, thus allowing a thin sheet of surface oil and water to flow over the dam and into the sump. The fluid is then drawn through the drainpipe into a diffusion chamber, from which it runs into the main part of the barge—a tank five feet, four inches deep, with a capacity of 10,000 gallons. There, oil and water are separated by gravity. The oil, since it is lighter than water, remains in the tank, while the water passes out through holes in the bottom.

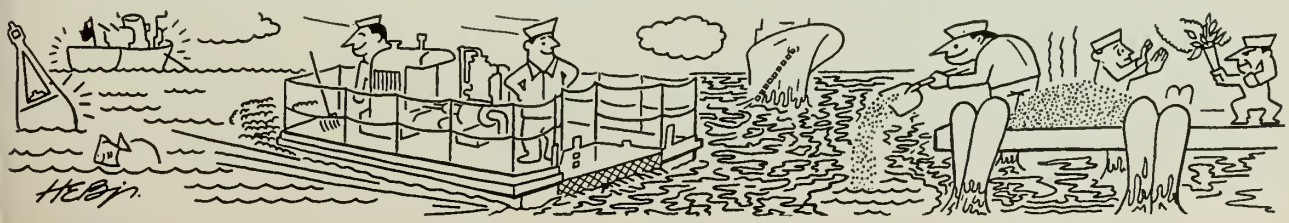
When the tank is full (or all the oil in a particular area has been removed) the skimmer is taken to a sludge barge and emptied. Later, the recovered oil is restored to usable fuel at a cost of only about one cent a gallon. Through the resultant savings the $10,000 skimmer is expected to pay for itself and the cost of its operation.

The skimmer is used in open areas or to draw slicks out from under piers and other obstructions. Surface oil can also be driven toward the barge by work-boat propellers or fire hoses.

"Sinking" the slicks with sand is not as effective or economical as the skimmer. However, it is useful in areas too restricted for the barge to reach.

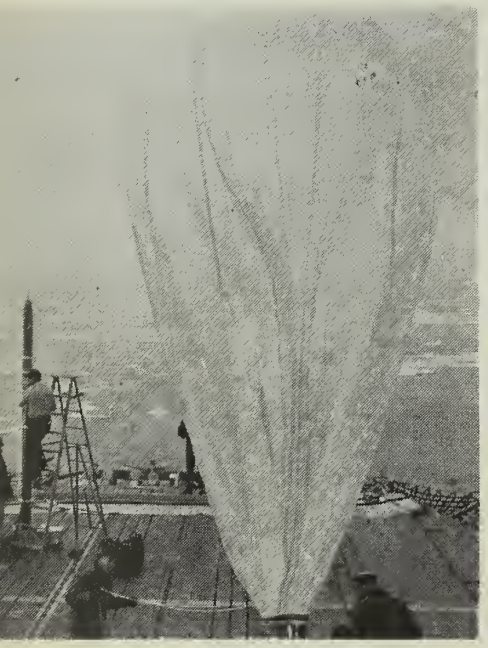
The sand is "carbonized" by being coated with crude creosote or asphaltic oils, then heated in a kiln to about 1000° Fahrenheit. It can be spread on a slick with sandblasting methods or by hand.

But, the best way of all to keep oil off the water is still the old reliable one—don't spill it.



EXPERIMENTS with hydrofoil craft and searching for better rocket and missile fuels are among ONR projects.

Navy's Brain Child



STUDY OF UPPER atmosphere was conducted by ONR civilian organizations.

THE OFFICE OF NAVAL RESEARCH, which has studied or sponsored studies on everything from a fish's sense of smell to the earth's correct position in the universe, is beginning its second decade of service.

ONR was established in 1946 "to plan, foster and encourage scientific research." Behind its founding was the realization that scientific knowledge and the advances born of it provide the key to modern military strength. This was the first peacetime venture by the United States Government into large-scale support of *basic* work in science.

ONR helped replenish the mine of new fundamental knowledge which had been almost played out by years of intensive development during World War II. Through this organization the Navy became a principal supporter of basic scientific research in the postwar era.

Today, ONR has extended its operations into basic and applied phases of almost every science, fostering and encouraging work in many fields important to future naval power. Without naval research many of these fields might go unexplored and the work in them, unsupported.

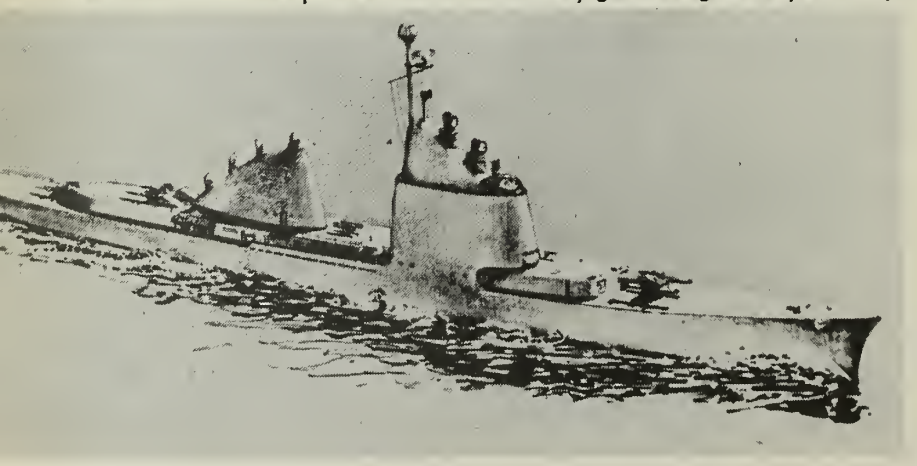
About 80 per cent of ONR basic research is done through contracts with non-military laboratories — on the campus, in industry and in government.

New knowledge and new ideas fostered by ONR are brought to the attention of the entire scientific community and result in better systems, better methods and better materials which benefit not only the Navy, but the scientific world as well.

All of ONR'S scientific work is performed under its Research Group, made up of seven operating units—the Earth, Material, Physical, Mathematical, Biological, Psychological and Naval Sciences Divisions.

• ***Earth Sciences*** studies acoustics, geography and the physics of the earth. Its projects have ranged from the noise problem, in connection with jet planes and missiles, to arctic geography and studies of the world distribution of disease. Also accomplished under this division were the discovery of the smallest known star and the definite fixing of the sun's position in our galaxy, which made

Below: Tomorrow's ships like CA 'SALU' will carry gear being developed today.



ROTOCHUTE for Marine Corps and one-man experimental helicopter were developed under ONR programs.

it possible for the first time to establish the exact place of the earth in the universe.

• ***Material Sciences*** includes the study of metallurgy, chemistry and power. ONR in this field has helped develop heat-resistant materials for aircraft, rockets and missiles, and a munitions production method which doesn't use costly platinum. In addition, it has added to the knowledge of the forces involved in combustion and has made important advances in the fields of liquid and solid propellants, fuels and power systems.

• ***Physical Sciences*** deals in physics, nuclear physics and electronics, playing a leading role in the progress America has made in these complex and vital areas. Three scientists have received Nobel Prizes while under contract with the ONR Physics Branch and many of today's nuclear physicists were trained under a program sponsored by ONR in cooperation with the Atomic Energy Commission.

• ***Mathematical Sciences*** is made up of the mathematics, statistics, logistics, information systems and mechanics branches. In this field the Office of Naval Research has worked toward overcoming the nation's shortage of mathematicians, developing the use of mathematics to predict the outcome of experiments without expensive testing, applying "automation" to logistics and perfecting and increasing the use of electronic computers. Its other achievements have included improvements in the design of ships, boats, high-speed submarines, aircraft and missiles. It has made advances in blast-resistant structures and vehicles, and worked on the application of mathematical statistics and laws of probability in everything from atomic bombs to X-rays.

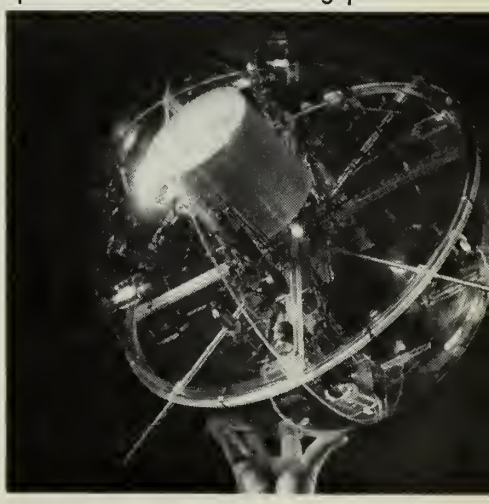
• ***Biological Sciences*** delves into physiology, biochemistry, microbiology, medicine, dentistry and of course, biology. Specialists in these sciences have worked out design improvements for plane and aviation equipment, successfully produced a virus in the absence of host cells for the first time, improved dental preservation and restoration and pioneered in the field of skin tissue preservation and transplanting. This unit also supported development of the germ-free animal as a valuable new research tool and studied the sense of smell in fish in order to develop fish repellents for protecting individuals or equipment in water.

• ***Psychological Sciences*** works in the group, physiological, engineering, personnel and training phases of psychology, studying everything from the emergence of leadership to the factors of sensory perception involved in tasks performed by Navymen. This division is also responsible for designing equipment which is engineered to make the operator's job easier and more effective, and for developing better methods of training and placing personnel.

• ***Naval Sciences*** is devoted to making the Navy a more effective fighting machine—whether it's in action on the sea, under the sea, in the air or in landing operations. Equipment developed under this division has included such important items as the one-man helicopter, the rotochute for airdrops by fast-flying planes, the ejectable capsule cockpit, improved body armor, new pick-up gear for use in UDT operations and better weapons for undersea warfare. Other advances have been made in the production of new mines, counter-mine measures and weapons and fire-control systems.

This list has barely touched the surface of the many accomplishments of ONR, a vital American outpost on the frontier of scientific knowledge. Still, it's a whale of a record for a mere ten-year old!

SCIENTISTS of ONR have played an important part in development of space satellite and launching plans.



Forty Below

FROGS MAY HIBERNATE in cold weather but not so the Navy's frogmen. They stay on the job whether in warm tropical waters or in the icy Arctic Ocean.

And thus they were on the job this "summer" helping the Navy's sea-lift of supplies to DEW Line find its way through the heavy pack ice off Point Barrow, Alaska. Helicopters from icebreakers flew ahead of the ships and from their positions above pointed out what looked to be safe passage through the maze of ice. However, ice fields are as illusive as they are dangerous and the "paths" needed closer inspection. Frogmen made the close-up checks in rubber boats.

While reconnoitering the ice fields they radioed their findings back to the flagship, USS *Eldorado* (AGC 11). They dived into the cold water to check the depth of the ice, planting explosives to clear the way, and inspecting hull damage of ships running afoul of ice.

Top: Frogmen explore ice topside. *Left*: They set out in snowstorm to check ice pack blocking passage northward. *Below*: The UDT experts take to the sea to check depth of ice and water.

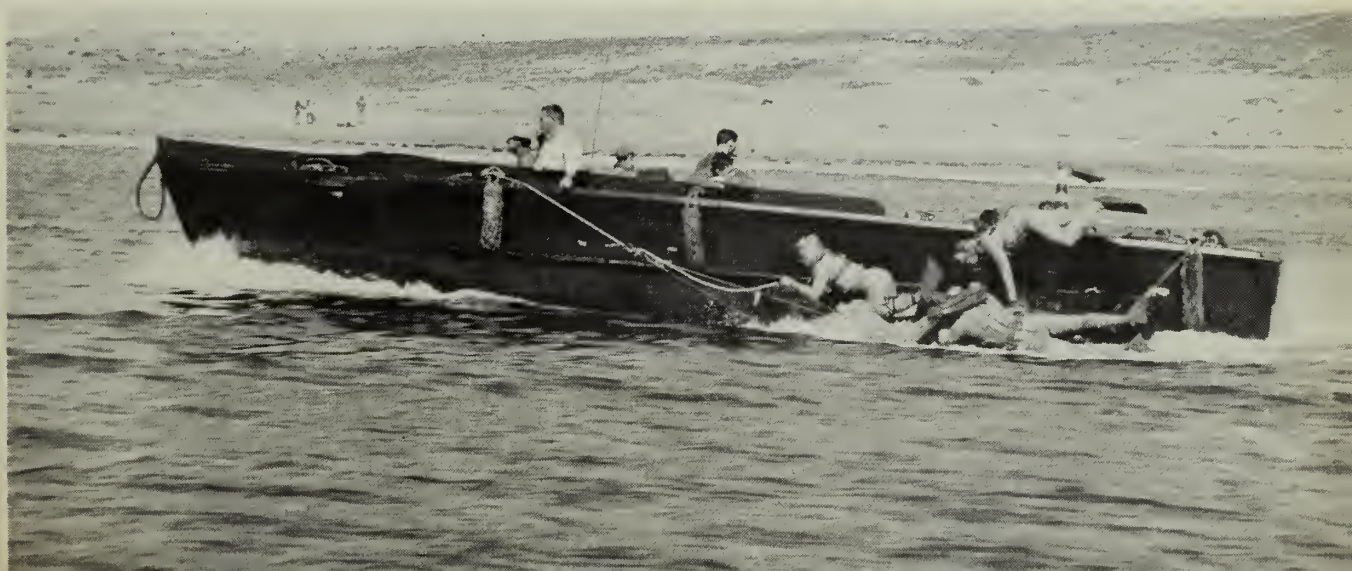
Ninety Above

RUGGED TRAINING and practice sessions keep the Navy's frogmen wet and ready for any job that comes along. Underwater Demolition is exacting work, where perfection in timing and team work is a must for survival and the success of hazardous missions.

At Coronado, Calif., the west coast headquarters for the Underwater Demolition Teams, Navy frogmen perfect their unique skills. They practice for perfection in use of small arms, the knife, judo—and constantly exercise to keep in the physical condition their job demands. They practice regularly the all-important drop and pick up procedures, and each day calls for a swim session no matter what the weather.

In the classroom they study tactics and demolition techniques, then once a year they put their knowledge and skill to the test with attacks and recon patrols.

Top Left: Frogmen were ready when they were needed in Tachen Island evacuation. *Top Right*: UDT swimmers come up from practice dive at Coronado. *Right*: Experts calculate fuse for demolition job. *Below*: Frogmen practice drop from speeding boat.



Meet Mrs. U.S. Navy

THE TITLE "Mrs. U.S. Navy of 1956" now belongs to Mrs. Beverly Thornburg Ellis, wife of Alfred R. Ellis, PN2, USN, of the Information and Education Office at the Norfolk Naval Station. Mrs. Ellis won her title (see ALL HANDS, October 1956, p. 8) in competition with some 1500 other Navy wives in the Fleet Reserve Association-sponsored contest.

The Queen of U.S. Navy wives was crowned by Secretary of the Navy Charles S. Thomas in ceremonies at the Long Beach Municipal Auditorium. The crowd of more than 3000 military and civic dignitaries gave Mrs. U.S. Navy, viz., Mrs. Ellis, a standing ovation after she received her crown.

In fine Navy style six sideboys piped the new Mrs. U.S. Navy over the side as she was presented with a huge trophy. Also, the Navy Queen received a 1956 automobile, a check for $2500, a trip for herself and her family around the U.S. and to Hawaii, an aluminum boat and many other valuable gifts.

The Coronation Ball was opened with Mrs. Ellis leading the Grand March with Secretary Thomas as her escort. Second in the Grand March was the Queen's husband, Alfred Ellis, who escorted the wife of the Navy Secretary.

Next came the first and second runners-up for the "Mrs. Navy" title, Mrs. Doris Mahan, wife of John E. Mahan, ADC, USN, test flight engineer in the BuAer Office in Dallas, Tex., and Mrs. Thelma Lewis, wife of Floyd F. Lewis, ET2, USN, of the submarine USS *Sterlet* (SS 392) at Pearl Harbor.

Selection of the title of Mrs. U.S. Navy, the first time in history that a Navyman's wife has been so honored, was based on what the wife has contributed to her husband's efforts to make the Navy his career.

Contest rules were simply that a career Navyman nominate his wife by submitting an application blank that contained such questions as "Why do you believe that your wife is an outstanding Navy wife?" Then the wife was required to write an essay on "Why I'm Proud to be a Navy Wife."

It was stressed that this was not a beauty contest, but was intended to give recognition to the woman who has contributed most to her husband's career in the Navy.

Mrs. Ellis, the mother of a boy and a girl, was nominated by her husband, who wrote in his covering letter: ". . . At the time we were married seven years ago, I had only three years in the Navy and had not decided on the Navy as a career. Beverly Jean, after becoming my wife, saw the benefits and compensations which could be obtained from a career in the Navy and urged me to reenlist . . . Since that time, she has done more for me toward furthering my career in the Navy than anyone could expect a Navy wife to do."

In her essay on why she was proud to be a Navy wife, Mrs. Ellis wrote in part: ". . . We have an assured income and my husband will retire in 10 years with a pension for life. At that time, he will still be a young man able to continue working with all his naval experience helping him in a civilian job."

Her essay also touched on other Navy benefits such as housing, medical care, recreation facilities and chances to travel. Mrs. Ellis also mentioned sea duty, but stated that it was a necessary part of a sailor's life and is a small sacrifice compared to all the advantages of Navy life.

The entries from the 1500 wives of enlisted men stationed through-

CORONATION BALL — Mrs. Ellis leads Grand March with SecNav while her husband escorts Mrs. Thomas.

JUDGES and activities represented were: (l to r) R. Creech, BM1, LantResFlt; R. Trotter, RM1, ComBatCruLant; E. Cauffman, MEC, ComTraLant; A. Torcivia, CS3, CinCNELM; B. Ruch, YNC, ComFourteen; LaV. Corning, QMC, ComSubLant; J. Argersinger, ADC, ComAirPac; J. Jones, BMC, ComCruDesPac; C. Everly, HMC, ComServLant; H. Bobbitt, PNC, ComEleven; E. Connelly, PNC, ComFour; W. Caldwell, RDC, ComFive; W. Baker, YN2, ComFifteen; and P. Bennett, BM1, ComOne. Standing: (l to r): M. Foglestrom, ETC, ComPhibPac; R. Grimes, RM1, ComMinLant; H. Collis, YNC, CNATRA, D. Guion, TEC, ComTraPac; M. Henderson, CDC, ComNine; R. Marshall, RMC, ComThirteen; E. Stallings, SKC, ComEight; F. Albaugh, PR1, ComAirLant; and H. Ford, BM1, ComTwelve; Judges not shown: F. Borentz, BM1, ComPhibLant; W. Higens, PNC, ComThree; J. Marion, YNC, ComSubLant; D. Black, YN1, ComServPac; and O. Roloff, JOC, PRNC. Judges for the finals of the contest were senior petty officers from the 31 participating commands. Winner of Navy-wide contest was announced at Coronation Ball.

out the world were sent to contest headquarters in Long Beach, Calif., for preliminary screening. From this group, the Fleet Reserve Association's panel of judges selected the five best applications from each of the 31 participating Navy commands throughout the world. Each command then picked the best entry from the five to compete in the final judging.

Each of the 31 finalists selected was then air-transported to Long Beach, accompanied by their husbands and children for a gala 10-day program arranged by the sponsoring-FRA. Included in the finalists' busy schedule were banquets, tours of movie studios, local and national TV appearances and a trip to a fashion center in Los Angeles.

Highlight of the festivities was the mammoth Fleet Review in Long Beach harbor in honor of the 31 contestants. Grand Marshal for the review was Admiral Arleigh A. Burke, USN, Chief of Naval Operations. The review of the 74 Navy ships, including aircraft carriers, cruisers, destroyers, submarines and escort vessels, was the largest in the history of the Navy and the first to be held on the West Coast in more than 20 years.

Also included in the program was an exhibition by the Navy's famed "Blue Angels"—the precision aerobatic team flying F9F *Panther* jets. The Secretary of the Navy and the 31 Navy wives witnessed the fly-over and parade of ships from the cruiser USS *Saint Paul* (CA 73).

On the evening following the gigantic review, the Long Beach Chamber of Commerce Armed Services Commission scheduled a banquet for the Navy Secretary and the 31 Navy wives. Other honored guests included Admiral Burke and Vice Admiral James L. Halloway.

In a speech before this gathering, Secretary Thomas underlined the role played by the wives of career Navymen. The Navy Secretary said:

"I'm certainly glad that I do not have to pick the finalist, because if I did, I'm afraid I would call it a draw, for every one of them would make a fine Mrs. U.S. Navy.

"The typical lady of these 31," continued Mr. Thomas, "has 'served' the Navy for 12 years. I say *'served'* in the full sense of the word; for while she doesn't wear a uniform or bear a service number, she serves just as much as her husband.

"With our modern Navy spread now on duty all over the globe, and

TYPICAL OF NAVY wives entered are finalists, Mrs. Charleen McMikle (DesLant) and (rt) Mrs. June Dimond (VS 38).

with many of our bluejackets assigned to duty in foreign lands, the Navy wife is also extremely important as an American ambassador. Hundreds of Navy wives, just like these here, are at this very moment serving with their husbands overseas.

"It might surprise you to know that Navy wives are stationed on all six continents, in some 40 countries and islands.

These wives, their husbands and their children, make contacts with the foreign people where they live in a way that no diplomat can hope to equal.

"They meet the grocer, the butcher, the clergy, the school teachers, the people next door, the families of the children with whom their children play. They learn the language of the country, and so do the children.

"They have an unrivaled opportunity, therefore, to represent our country, tell about our country, and explain our American way of life to people of foreign lands. In this task, I am proud to say, they do a wonderful job," added Navy Secretary Thomas.

"In my inspection trips to our Fleets and overseas bases," continued Mr. Thomas, "I pay particular attention to this good community relations problem, and I am happy to say that our ambassadors and diplomatic people have nothing but praise for the way our Navy people conduct themselves and the way they represent us overseas. The officials of other countries go out of their way to tell me how worthwhile and how much good these exchanges are," he added.

The final judging for the "Mrs. U.S. Navy" contest was held on 15 September. Judges were senior petty officers from the 31 participating commands. Their closely guarded decision was announced by the Navy Secretary at the Coronation Ball.

In addition to the 10-day holiday at the expense of the FRA, the 31 families that participated in the finals of this contest received numerous other gifts. Among other things, each of the 31 contestants received a wrist watch named "Mrs. U.S. Navy," a complete set of hair dressing products, an electric coffee maker and toaster, six months' supply of cosmetics, a two-year subscription to a service publication, and a complete model task force for each of the contestants' children.

IN GOOD HANDS — Alfred Ellis, PN2, USN, holds wife's trophy for first place in 'Mrs. United States Navy' contest during presentation at Long Beach.

Additional fame and recognition is to come to all U.S. Navy wives. An independent movie company has shot a full-length feature film based on the life of an average Navy wife. The movie will show the Navy wife's trials, tribulations, her joys and sorrows, some of the sacrifices she must make, and will also illustrate the excellent advantages of life as a wife of a career Navyman. The full-color film is expected to be released shortly.

Mrs. U.S. Navy 1956 is now in Hawaii with her family after a whirlwind tour of various cities in the United States.

The 31 'Mrs. U. S. Navy' Area Winners, and Husbands

Beverly Ellis (Winner)—Alfred Ellis, PN2, USN, Naval Station, Norfolk, Va.
Doris Mahan (Second Place)—John E. Mahon, ADC, USN, BAR, Dallas, Texas.
Thelma Lewis (Third Place)—Floyd F. Lewis, ET2, USN, USS *Sterlet* (SS 392).
Joan Alfano—L. Alfano, DT1 USN, USS *Bremerton* (CA 130).
Faye Azbell—W. M. Azbell, ENC, USN, USS *Union* (AKA 106).
Primrose Bond—W. Bonds, QMC, USN, USS *Howard W. Gilmore* (AS 16).
Peggy Borgia—J. Borgia, RD1, USN, USS *Chemung* (AO 30).
Gloria Bowser—R. N. Bowser, YN1, USN, Third Naval District Hdqtrs.
Laven Chapman—A. L. Chapman, FPC, USN, USS *Canberra* (CAG 2).
Martha Chick—D. R. Chick, SK2, USN, USS *Leader* (MSO 490).
Virgina Chinnes—B. Chinnes, AT1, USN, NATTC Norman, Okla.
June Dimond—C. Dimond, ADR2, USN, Fleet Air Station Squadron 38.
Louise Ferland—L. Ferland, YNC, USN, Philadelphia Recruiting Station.
Mary Frost—D. B. Frost, ENC, USN, USS *Brattleboro* (PCER 852).
Ruth H. Gafgen—D. K. Gafgen, SK1, USN, Naval Station, Newport, R. I.
Louise Grubbs—S. Grubbs, YNC, USN, Pacific Reserve Fleet.
Dolores Hale—R. L. Hale, DM2, USN, U. S. European Command, Paris, France.
Mary Hamby—T. Hamby, YNC, USN, ComMinLant, Charleston, S. C.
Lois Helms—C. P. Helms, BMC, USN, Naval Amphibious Base, Little Creek, Va.
Virginia Hughey—G. Hughey, GM1, USN, USS *Eldorado* (AGC 11).
Anna Lacy—H. Lacy, HMC, USN, Naval Reserve Training Center, Evansville, Ind.
Helen Macy—H. Macy, AT1, USN, Airborne Early Warning Squadron 13.
Juanita Marlin—M. C. Marlin, ADC, USN, NAS Miramar, Calif.
Margarete May—L. May, RM1, USN, Naval Base, Norfolk, Va.
Charleen McMickle—W. M. McMickle, QM1, USN, USS *Holder* (DDE 819).
Evelyn Omalley—J. P. Omalley, EN1, USN, Lakeland, Fla., Recruiting Station.
Mary Parsons—R. A. Parsons, ETC, USN, Naval Communications Station, Washington, D. C.
Helena Pritchard—K. H. Pritchard, SWC, USN, Midway Island.
Alda Rowland—G. H. Rowland, ENC, USN, Richmond, Calif., Recruiting Station.
Isabelle Senkier—L. C. Senkier, SKC, USN, MSTS, Balboa, C. Z.
Donna White—C. White, PN1, USN, Fleet Training Group, San Diego, Calif.

Brief news items about other branches of the armed services.

TRACER BULLETS cut the darkness as members of an Army Antiaircraft Artillery battalion practice night firing.

★ ★ ★

THE ONLY SEA-GOING RADIO STATION in the world is the Coast Guard cutter *Courier*. Operated for the U.S. Information Agency, *Courier* is a completely equipped radio relay station, carrying some of the most powerful transmitting equipment of its kind ever installed aboard a ship.

Filling most of one cargo hold, this equipment consists of a 150-kilowatt medium-wave transmitter and two 35-kilowatt short-wave transmitters. A three-kilowatt short-wave transmitter serves for ship-to-ship and ship-to-shore communications.

In its unique role of being the only mobile transmitting facility in the Voice of America's world network of 78 transmitters located at 10 overseas relay bases, *Courier* provides USIA with a versatile radio relay service. She can be moved quickly and easily from one part of the world to another to meet any emergency situation.

★ ★ ★

THE U.S. AIR FORCE's new medium troop and cargo carrier, the prop-jet C-130 *Hercules*, has successfully dropped what is claimed to be the heaviest single load ever yanked by parachute from an airplane for aerial delivery.

The air freighter, which enters active service with the Air Force's Tactical Air Command, made multiple deliveries as well as single load drops during a series of tests at El Centro Calif., Naval Auxiliary Air Station.

During the flights, a huge road-grading machine—such as is commonly seen working the highways of the nation—floated through the air over California.

However, this was not the heaviest single item to be pulled by parachute from the C-130. A 27,000-pound dummy load of iron was the record-breaker. This weight included the iron, the platform carrying the load, and the six 100-foot cargo parachutes necessary to float it easily to the ground.

The aircraft was flying at an altitude of 2000 feet, when an extraction parachute pulled the loaded platform out into space, and six cargo chutes lowered it.

In another flight, the plane carried 18 A-22 containers, in which almost any type small shipments can be packed. The plane released these containers in a sequence which filled the skies with 18 billowing parachutes. This was numerically the largest multiple load dropped. Weighing a total of 29,000 pounds, it also probably was the heaviest cargo floating out of any aircraft—whether extracted by parachute or simply tilted into space from an open door.

Perhaps the first multiple drop of three units from one plane was made by the C-130 earlier in these same tests. An M-55 gun mount, a 105mm howitzer, and an Army Jeep were lowered to the ground. Total weight was 14,500 pounds.

★ ★ ★

THE ARMY QUARTERMASTER CORPS is working out designs for the world's first production-sized pilot plant to use atomic and electronic radiation in the preservation of food. The facility, to be known as the United States Army Ionizing Radiation Center, will be able to process up to 1000 tons of food a month.

Instead of heat, the plant will use both gamma rays and electrons to kill or inactivate the micro-organisms responsible for food spoilage. When completed, the Radiation Center is expected to be the first atomic plant in the world to make maximum use of the gamma radiation which accompanies nuclear reactions. Previously, such radiation was looked upon as an undesirable by-product of reactor operation. Studies to be conducted at the center will enable the Quartermaster Corps to compare the gamma ray and electronic processes to determine the relative advantages of each.

Tests already made have shown that many perishable foods processed through irradiation can be stored for three months or more without refrigeration. The process does not detract from the wholesomeness or nutritional value of foods and does not make them radioactive. The color, odor and flavor of many foods remain unchanged by radiation, and in cases where these qualities are adversely affected, progress is being made toward overcoming this difficulty.

The Atomic Energy Commission will design and con-

IT'S A LONG REACH for the Air Force ground crew servicing radio gear in tail of B-52 that stands over 48 feet.

struct the reactor and special equipment to be used in the gamma ray process, while the linear accelerator to be used in the electronic process will be built under the direction of the Quartermaster Research and Development Command. Other elements of the armed forces, as well as other government agencies and educational and industrial institutions of the nation, will also participate in the project.

In addition to making more fresh foods available to the armed forces under field conditions, the military and civilian use of radiation may someday reduce refrigeration requirements, cut down food losses and lead to the control of certain food-borne diseases.

★ ★ ★

THE XV-1, the world's first successful convertiplane, unofficially exceeded the speed record for helicopters when it reached 200 miles an hour.

The combination of helicopter and airplane that does not require runways for take-off or landing, hit this speed just before the successful completion of a flight evaluation program at Edwards Air Force Base, Calif.

The convertiplane design, as demonstrated by the XV-1, overcomes some of the forward speed limitations which have been inherent in helicopters to date.

The best forward speed attainable by helicopters up to this time is approximately 160 mph. Several manufacturers have been at work on various convertiplane projects in recent years but the XV-1—utilizing a helicopter rotor, a conventional aircraft piston engine, pusher type propeller, and short airplane wings—is the only such craft so far that has achieved conversion in flight.

Pressure jet engines located at the tip of each of three rotor blades provide power for helicopter flight. When forward speed exceeds the stalling speed of the wings of the XV-1, power may be shifted from rotor to pusher propeller to execute a flight conversion. Flight controls are simultaneously shifted from rotor to conventional aircraft type and the overhead rotor is allowed to windmill.

★ ★ ★

THE ELECTRONIC EYE of radar has penetrated a new field, outmoding some of the short-sighted instruments of the surveyor.

With the "radar ruler" developed by the Army Signal Corps a surveyor can measure off 50 miles in a single reading instead of the usual 20 or 30 which require meticulous sighting.

Even at greater ranges, the electronic calculations are precise to within a few feet.

The new system uses two separate jeep-portable radar stations, one at each end of the distance to be measured. The electronic beam is not hampered by bad visibility or foliage, as is the surveyor's conventional transit.

The complete station, a 25-foot collapsible antenna mast and three metal cases of electronic equipment weighing only 200 pounds, fits into the back of a jeep and can be set up and operated by one man.

The antennas placed at the two distant points toss a radar beam back and forth between them thousands of times a second.

Automatic computers register the distance in terms of time the signal takes to make 10,000 round trips. Using a simple chart, the operator readily converts this reading to a high precision point-to-pont measurement.

The radar range-finder is designed to replace standard surveying gear when speed is essential in determining long distances. A complete double-check reading takes less than five minutes.

NEW U.S. ARMY FLAG is white with seal in ultramarine blue above red scroll with U.S. Army lettered in white.

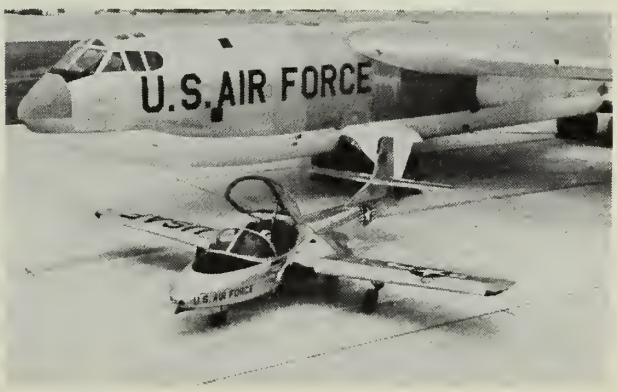
★ ★ ★

THE MOST ADVANCED FIGHTER-BOMBER in the U.S. Air Force—the supersonic, nuclear-weapons-carrying F-105—has been officially christened *Thunder-chief*.

Latest in the line of famed "Thundercraft," the *Thunderchief* is a member of the same family as the World War II P-47 *Thunderbolt*, the F-84 *Thunderjet*, workhorse of the Korean conflict, and the currently produced F-84F *Thunderstreak* and RF-84F *Thunderflash*.

The *Thunderchief* has short, very thin swept-back wings and a long cylindrical fuselage. Air to feed its turbojet engine is received through wing-root intake ducts, permitting radar equipment to be installed in the needle nose.

A one-piece flying tail (stabilator) is set low on the aft section of the fuselage, on the underside of which is located a ventral fin to provide lateral stability.



LARGEST AND SMALLEST in USAF jets now in production are B-52 *Stratofortress* and T-37 trainer shown here.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Naval Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Time-in-Grade Requirements

SIR: Before I shipped into the Regular Navy as a DT2, I had completed three years of continuous service as a DT1, USNR (TAR), and was recommended for chief. Would I have to put in another three years as a first class in order to be eligible for CPO again?—J.J.K., DT2, USN.

• *No. You've already met the time-in-grade requirements and weren't given your lower rate for disciplinary reasons.*

Therefore (provided that you meet all the other qualifications), you'll be eligible to take the next DTCA exams that come along after you're advanced to DT1.

You'll find confirmation in BuPers Inst. 1430.7B.—ED.

Where's Norfolk Navy Yard?

SIR: In "Taffrail Talk" some time back (May issue, page 64) you mentioned the christening of the new midsection of USS *Ulua* (SS 428) at the "Portsmouth Naval Yard," thereby adding further confusion to one of the most common mix-ups in the Navy today.

The midsection of *Ulua* was built at the Norfolk Naval Shipyard. Since this yard is not in Norfolk, but across the Southern Branch of the Elizabeth River in Portsmouth, Va., it is often mistakenly called the "Portsmouth Naval Shipyard." Actually, *the* Portsmouth Naval Shipyard is the one which *isn't* in Portsmouth, N. H. It's on an island in the Piscataqua River between that Portsmouth and Kittery, Maine.

As if the confusion between the Norfolk and Portsmouth Naval Shipyards isn't enough, the Norfolk Naval Shipyard and the Norfolk Naval Base (which *is* in Norfolk) also come in for frequent mix-ups. For example, all mail addressed to the Navy Yard, Norfolk, Va., is automatically sent to the Norfolk Naval Shipyard at Portsmouth, even though the contents of the letter often show the writer meant to contact the Naval Base.

Personally, I believe the whole problem could be cleared up by calling the Norfolk Naval Shipyard the Gosport Naval Shipyard, which was its original name anyway.

Incidentally, the New York Naval Shipyard isn't in New York either. It's in Brooklyn!—M. I. McCreight, III, LT, USN.

• *Thanks for setting us straight.*

We usually try to avoid mistakes, but since we found out there was a California, Pa., a Kansas, Ala., and a Mississippi, Mo., we've become thoroughly confused in our geography.

However, no matter what it's called or where it is, the Norfolk Naval Shipyard is a mighty important place, as we learned when we did a little research to verify your comments.

We discovered it was one of the largest establishments of its type in the world, and one of the oldest in the western hemisphere, as well as a model of modern productive efficiency. Its 811 acres contain 30.64 miles of paved streets and roads, 403 buildings with a total area of more than seven and one half million square feet, 44.2 miles of railroad track with nine locomotives and 254 cars, seven drydocks, two shipbuilding ways and 350 cranes and derricks.

We're still trying to figure out how we could have misplaced something as big as all that.—ED.

Right Spot for Rating Badge

SIR: We've had quite a bit of discussion about the correct position of the rating badge. Some say it should be four inches down from the shoulder seam and others claim it's supposed to be halfway between elbow and shoulder. Could you clear up the matter for us?—E.L.A., END2, USNR.

• *Glad to. Article 1202.1(f) of "U. S. Navy Uniform Regulations" says the badge must be worn on the left sleeve, midway between shoulder and elbow. On CPO coats or steward jackets it is centered midway between the front and back creases of the sleeve. On the jumper of a petty officer, first, second or third class, it must be worn "so that the rear edge of the badge shall coincide with the side view center line of the sleeve."* —ED.

Message for Old Forrestal

SIR: Your item in the July issue of ALL HANDS (Taffrail Talk, p. 64) about Larry J. Cates of USS *Forrestal*, whose hobby was tossing bottles into the sea, reminds me that I too was once an overboard-bottle-tosser.

Unlike GMSN Cates, who tossed 50 bottles over the side and recovered only one, I have a perfect record of 100 per cent recovery.

One dull Saturday afternoon back in 1940 while on board USS *Jouett* (DD 396) anchored in Lahaina Roads, T. H., another yeoman and myself (then a YN1) decided to give sending-a-message-via-a-bottle a try.

We typed our names, the name of our ship, its location and the date on a slip of paper. We then sealed it in an old ink bottle and sent it on its way. This was about 1330.

That same night about 2130, guard mail came aboard. Among the mail was our message. Our bottle had been picked up by the gangway watch of a Fleet tug, anchored about a mile or so away. They returned our message with the comment: "Try again!"

Needless to say, having proved that bottle-messages transmitted by water do work, and having received an answer in a speedy eight hours, we saw no need to try again.—LCDR A.S. Lott, USN.

• *Your experience with the bottle proves very interesting. Has anyone else got any bottle stories to tell?*—ED.

Advanced School for Radiomen

SIR: In the May 1956 issue of ALL HANDS, you refer to the Radioman's Materiel School (RM/B) in operation at NTC Bainbridge, Md. We have an RM2 who wants to request this school but in our ServPac instructions it refers to the school as Radioman Class B School. I'm sure that the Radioman Class B School at Bainbridge and the Radioman's Materiel School you refer to are one and the same, but several people here do not agree. Clarification, please—R.B.W., YNC, USN.

• *You're right, Chief. The Radioman Class B School is the only advanced school for radiomen, and it is conducted at NTC Bainbridge, Md. However, there are other technical schools, such as the Naval School, TTV, at Norfolk, Va., which rated RMs are eligible to attend.* —ED.

How to Keep Out of Print

SIR: In recent issues of ALL HANDS, I have noticed several articles about operation "FirmLink" that was held in Bangkok, Thailand. In each story you've published, USS *Princeton* (CVS 37) has been mentioned. But conspicuous by its absence is the mention of our ship, USS *Salisbury Sound* (AV 13).

Princeton is a big ship, and a good ship, but I do believe that others who participated in the exercise should be given mention. In this operation, *Salisbury Sound* was called upon to take 600 enlisted men and 50 officers of the Philippine Army to Bangkok for the exercise and then return them to Manila. Our ship never did receive any publicity for the part she played.

—D.L., RM, USN.

• *Ships, men and the sea make the news for us. Anything on those subjects that is sent to* ALL HANDS *and which is of general Navy interest will get into print. Had a story been received from* Salisbury Sound *covering her part in exercise "FirmLink" it, too, would have been published.*

Because of our limited staff, ALL HANDS *cannot send reporters to cover every exercise, as much as we should like. So, we have to depend on type command and ships' PIOs and journalists to send the material to us. That fact, however, does not prevent you, or any other Navyman, from submitting a story DIRECTLY to* ALL HANDS *magazine.*—ED.

More About That 18-inch Gun

SIR: On page 21 of the January '55 issue of ALL HANDS and again on page 25 in the April '55 issue you published letters to the editor concerning 18-inch guns.

You mentioned that your research went back to the 1920s and BuOrd said that the Navy had only one 18-inch gun and that was at the Proving Grounds, Dahlgren, Va.

One reader, in a letter to the editor (April '55) thought that he had seen some 18-inchers or guns at least bigger than 16-inches at the Mare Island Navy Yard in 1934.

Not that I question the contents of your 4.0 magazine, but I'm submitting what I believe to be "picture proof" of an 18-inch gun that was on the West Coast.

I cannot take credit for taking this picture as I bought it from a shipmate many years ago, I believe that it was taken at Puget Sound and that it has never been published.

I think the guns in the fore- and background are five-inch, the torpedo tubes, 21-inch, and the center of attraction is the much discussed 16-inch gun.

I'm sure that this picture will be of interest to your readers, and may clarify the 18-inch gun mystery.

—R.H.B., LT., USN.

• *Many thanks for sending us the pic. We agree that there is nothing better than pictured proof but are sorry that it does not bring new light upon the much talked about 18-inch "mystery" gun.*

BuOrd still contends that the Navy had only one 18-inch gun and that it was located at the Dahlgren Proving Grounds.

Experts at BuOrd identify the big gun in your picture as a Mark 8, 16"/45 caliber used on battleships of the Colorado *class. You're correct about the midgets, they're 5"/51!*—ED.

Two-Time Medal of Honor Winners

SIR: During a recent bull-session among personnel of the Armed Services Police Detachment here in New York, the subject of conversation was the Medal of Honor. It was surprising how little we knew about that award. Possibly you can answer the following for us.

1. Can the Medal of Honor be awarded in peacetime?
2. How many persons have been presented this award more than once?
3. During our discussion one man said that an individual had been awarded the Medal of Honor twice and was recommended for a third award. Can you confirm or deny this?

—L.E.VP., BMC, USN.

• *We'll do what we can for you. In reply to your first question, the answer is: Yes, the Medal of Honor can be awarded in peacetime. An act of Congress on 7 Aug 1942, authorizes the Medal of Honor to be presented by the President, in the name of Congress, to a person in the U.S. Navy, who in action involving conflict with the enemy, or in the line of his profession, distinguishes himself conspicuously by gallantry and intrepidity at the risk of his life above and beyond the call of duty and without detriment to the mission of his command or to the command to which attached.*

According to the records of this Bureau a total of nine members of the Navy and Marine Corps have re-

Am I Entitled to Bonus?

SIR: I reenlisted on 27 Dec 1955, after nearly 27 years of continuous active service. When I shipped over the personnel office informed me that I was not entitled to any reenlistment bonus. According to *BuPers Manual,* Article A-4203, Change 4, however, I think I am entitled to such an allowance. How about it?—R.P., ADC, USN.

• *You are entitled to a bonus of $160 for a four-year reenlistment under the provision of Section 207, Career Compensation Act of 1949. The amount of your entitlement is computed in accordance with paragraph 044070-3b of the "Navy Comptroller Manual." You had 26 years, eight months and two days of active service at the time of your reenlistment.*

You are not entitled to benefits under the "new" bonus law (Public Law 506, which became Section 208 of the Career Compensation Act), since that law provides no benefits for anyone who has completed 20 years of service. But on the other hand Section 207 provides a reenlistment bonus for a person who has more than one year of active service to complete before completing a total of 30 years of active service.—ED.

NOT SO BIG as it looks. Large gun in old photo was believed to be 18-inch gun but the experts at BuOrd identified it as a Mark 8, 16"/45 caliber gun.

NO BROODING—Destroyer tender *USS Arcadia* (AD 23) cruises Atlantic during break in tending duties. She makes her home port in Newport, R. I.

ceived the Navy Medal of Honor twice. In addition, five Marines have been awarded both the Navy Medal of Honor and Army Medal of Honor.

Records here fail to show a recommendation for a third MOH to any one individual. However, it is possible that such a recommendation may have been made and disapproved in the field, and not forwarded to the Bureau through the chain of command.

By the way, Chief, in the event you or your shipmates want more detailed information on the Medal of Honor, there's a book, "The Medal of Honor, the Navy 1861-1949," available at $4.00 per copy, plus postage, from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.—ED.

Floating Haven

SIR: According to the Korean Presidential Unit Citation presented to USS *Haven* (AH 12), this award was made for services during the period from 18 Oct 1950 to 25 Jul 1952. However, I have read somewhere that *Haven* only rates the KPUC from October 1950 through June 1951. I feel certain that the citation must be correct, but can you verify the dates for me?—C. J. P., HM1, USN.

• *You can put an end to all such uncertainty by referring to BuPers Inst. 1650.5B which contains the complete and official list of commands and units awarded the Republic of Korea Presidential Unit Citation, with participating dates.* Haven *was, as a matter of fact, awarded the KPUC for the period 18 Oct 1950 to 25 Jun 1952.*

Haven, *the former 520-foot* ss Marine Hawk, *certainly earned her award. She was taken over by the Navy in 1944 and converted to a hospital ship. Haven was commissioned in the closing days of World War II (5 May 1945) but played an important role in evacuating, hospitalizing and transporting Allied prisoners of war from Japan.*

After the war she was fitted out with special equipment and assigned to the historic Bikini atom bomb tests. With a team of radiological safety technicians aboard, Haven *was responsible for the safety factors during the tests as well as handling the hospitalization of all task force personnel.*

In June 1947 the 11,400-ton ship joined the mothball fleet and remained inactive until 15 Sep 1950 when her services were required in support of the Korean conflict.

A month later, Haven *dropped anchor at Inchon Harbor and remained in the Western Pacific for the next 12 months. Before the war ended she had completed three tours of duty in the Far East. During that time* Haven *hospitalized or treated more than 49,750 patients.*

In recognition of her "valiant support of the United Nations' battle for freedom," President Syngman Rhee awarded Haven *the Korean Presidential Unit Citation. In addition, the then Commandant of the Marine Corps, General Lemuel Shepherd, visited the hospital ship to render his personal thanks for what he termed the "loving care" given to his troops in Korea.* Haven *is entitled to the Korean Service Medal with five battle stars for her first year of service in the Far East.*—ED.

Choice of Duty?

SIR: I agreed to extend my enlistment for shore duty at a specific place and an entry to that effect was made on page 13 in my service record. About two and one-half months after being assigned to such duty, I was transferred to other duty which I did not request, volunteer or agree to extend for.

Why should I be obligated to serve the balance of the period for which I extended when I am not assigned to the duty for which I agreed to extend?—L.G.P., ADC, USN.

• *When personnel are assigned to Bureau shore or recruiting duty they are assigned to areas, that is, to certain naval districts or recruiting areas. While the Navy tries to locate them in or near the geographical location they request, they are not guaranteed duty at any* particular station *whether they have agreed to extend for such duty or not.*

During their normal tour of shore duty they may be transferred to any activity within that naval district or recruiting area. They may not, however, be transferred out of that district or area unless under exceptional circumstances.

If you feel that you did not get the duty for which you extended your enlistment, you have the privilege of submitting to the Chief of Naval Personnel, via official channels, a request that your agreement to extend your enlistment be cancelled. Submission of such a request is no assurance that your extension will be cancelled as each case is decided upon its individual merits.—ED.

What the H

SIR: Sometimes it takes a while for all hands to see ALL HANDS. Today, I read in the June '56 issue about the new phonetic alphabet and I'd like to raise a point about when the word HYPO was dropped from use.

According to the article, HYPO appeared in *The Bluejackets' Manual* replacing HOW in 1940. Now, if that was an official change authorized by the Navy, how come I was taught to use the word HYPO in the fall of 1942, while going through pre-flight school as a Naval Aviation Cadet? The change was not taught in our courses until early 1943.—W. E. H., MAJ, USMCR.

• *We goofed (spelled* GOLF, OSCAR, OSCAR, FOXTROT, ECHO, DELTA).

How *replaced* HYPO *under Alnav 246, which was originated by the Secretary of the Navy on 18 Nov 1942, in accordance with an Allied agreement on a standardized alphabet. The new system went into effect 1 Jan 1943, which agrees with what you've said.*

When we prepared our article we were using "The Bluejackets' Manual —1940," but we overlooked an important detail. That same edition was reprinted with minor changes a number of times between 1940 and 1943, when the next major revision came out.

The copy we had was apparently printed in late 1942 (after Alnav 246 was issued), so it included the new Allied alphabet. In other words, the mistake occurred because we were actually looking at a late 1942 version of the book, even though it was still called the BJM—1940.

Anyway, that's neither here nor there. The correct word is HOTEL.—ED.

Speed Cones

SIR.: I may be wrong, but I think you have an error in your July 1956 "Quiz Aweigh." Weren't speed cones discontinued some time ago?—WC.A., CDR, USN.

• *To you, commander, and to a certain captain who twitted us for being behind times, and to those others who caught us in a bight of our own furling, we say: Belay that, disregard it fore and aft. CNO letter 24094P20 of 28 Nov 1952 took speed cones off ships. The face of our editor-in-charge-of-taking-the-blame resembles a port running light.*

You'll have to admit, though, when we make a boner we do it in a big way.—ED.

Passing Honors

SIR: I am rather uncertain as to what's what in regard to rendering passing honors between ships and boats, and the display of the ensign by boats. Since regulations do not appear to cover these matters in detail, possibly you can help me out.

U.S. Navy Regulations (Article 2134.1) requires that "attention shall be sounded by the junior when the bow of one ship passes the bow or stern of the other or, if a senior be embarked in a boat, before the boat is abreast, or nearest to abreast, the quarterdeck."

In the case of ships rendering passing honors, there seems to be no question as to who is junior and therefore obligated to originate the salute, but when it comes to passing gigs, then the situation is somewhat more difficult. In this respect, is it ever correct for a junior embarked in a boat to originate the salute when passing a ship commanded by a senior?

Article 2155.5 of *Navy Regulations* states that "the national ensign shall be displayed from water-borne boats of the naval service . . . when a . . . commanding officer . . . in uniform, is embarked in a boat of his command or one assigned to his personal use." This puzzles me. Would that mean that the national ensign should be displayed (on boats from a ship not underway) from 0800 to sunset; or, during daylight hours while in a foreign port; or at any time, day or night?—J.P.M.R., LT., USN.

• *It is common practice for the junior officer embarked in a boat to originate the salute when passing a ship commanded by a senior when a possible misunderstanding could result from his failure to do so.*

In accordance with Article 2166.6, the national ensign shall be displayed from water-borne boats at such times as prescribed by the senior officer present.

The latitude granted the SOP for prescribing when colors will be flown from boats prohibits an exact answer to your questions. Also, the situations such as in foreign ports, foreign customs, etc., vary too greatly to define closely the use of the national ensign as it pertains to personal boats.—ED.

Facts and Figures about the YN's Yeoman Performance

SIR: In "Taffrail Talk" of your May issue you said that since it takes 14 ounces of pressure to strike a typewriter key, an average yeoman's daily work is the equivalent of lifting 378,000 ounces, 23,625 pounds or 11½ tons a day. Because of that statement, our office routine has been upset no end and our yeoman has become a mathematical genius. To wit:

He counts each and every stroke of his typing (including spacing).

He knows the multiplication table of 14 by heart.

He can convert ounces into pounds and pounds into tons faster than an electronic computer with an abacus gearshift.

He falls into a state of complete exhaustion when he reaches the 11½-ton mark.

And, worst of all, he puts out 20 tons of hot air while accumulating his 11½ tons of typing.

In order to get our office back on an even keel (and make up for the man-hours we've lost because of what you did to our yeoman) how about publishing a "majic" statement of 16-tons as a good day's work for our typewriter jockey?—W.C.J., AOC, USN.

• *Actually, we didn't even begin to do the long-suffering yeoman full justice. As you yourself point out, the gallant pen-pusher puts out 20 tons of hot air per day above and beyond the 11½-ton call of duty. That makes a daily workload of 31½ tons per day. And in case you don't think those 20 tons should be included in the totals, just stop and think how much of that so-called "hot air" consists of such traditional phrases as, "dry up," "pipe down" or "knock it off." These expressions are just as vital to the yeoman's job as his paper clips and typewriter brush, for without them, how else would the noble "yo-yo" silence those whose idle chit-chat might interfere with his work?*

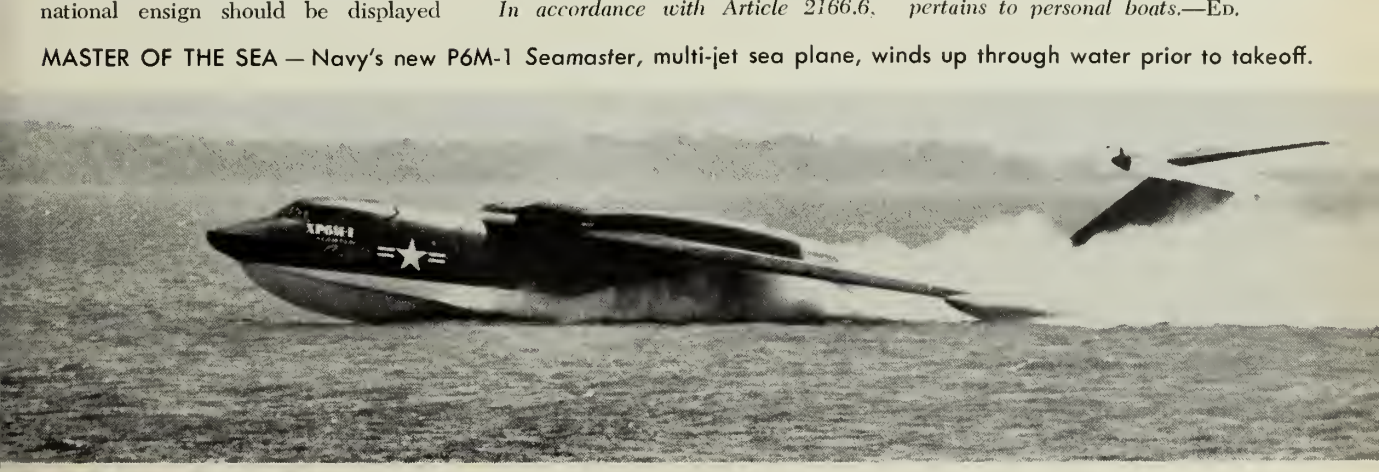
Nor have we given our cross-quilled hero credit for the energy he expends in bending his ear to gripes and complaints about matters not under his control; pouring and stirring the coffee that keeps him going; answering such questions as, "what's for chow?"; sharpening pencils; shining his shoes; oiling his swivel-chair; exercising his fingers; and untangling typewriter keys he's jammed in attempts at world speed records on "Now is the time for all good men to come to the aid of the sly fox who jumps over the lazy dog."

Not only that, but we didn't mention any of the occupational diseases of the yeoman's trade, such as "thumbitis yeomanensis" (a hardening of the thumb caused by hitting the space bar all day long) or "pneumoeraser dustitis" (a lung condition brought on by constant inhalation of eraser dust).

No, 16 tons wouldn't begin to cover the hard work, privation and suffering the yeoman endures. So, here's a salute to the hardy pen-pusher.

So for all yeoman we say, "Damn the margin releases! Full speed ahead!"—ED.

MASTER OF THE SEA — Navy's new P6M-1 Seamaster, multi-jet sea plane, winds up through water prior to takeoff.



COOL GAME—Navymen enjoy a sunny Arctic day using ice churned up by USS Atka for table during break while planting automatic weather stations.

Leave Entries in Service Record

SIR: Are the entries "no leave taken at this command," "no leave taken since date of last leave entry" or "leave rations credited are not in excess of leave taken" still required to be entered on Leave Reeord Form (NavPers 601, Rev. 3-50) prior to an individual's transfer!

This matter has me puzzled as the instructions on the back of NavPers 601, Rev. 3-50, call for them, yet they are not used in the examples in *BuPers Manual*. What's the scoop?

—J.W.R., YNC, USN.

• *The instructions on the reverse side of NavPers 601 (page 8 of enlisted service record) are no longer applicable. Current instructions for the preparation of this page are now incorporated in Article B-2318, "BuPers Manual." The contradictory instructions will be omitted when this page is reprinted.*—ED.

CWO in Limited Duty Status

SIR: I am a temporary Chief Warrant Officer (W-3) with an L-5 limited duty designation resulting from a coronary occlusion I had in October 1955.

I have apparently made a normal reeovery from my illness and am now filling a regular CWO billet ashore.

In November 1957 I will have the necessary time requirements for advancement to W-4. Will my limited duty status affect my chances for promotion? If so, what must I do in order to obtain a waiver?

What is the Bureau's current policy in regard to length of service for those in a limited duty status? I have 17 years, nine months of active duty. Will I be permitted to complete 20 years of service?—R.J.H., CWO-W3, USN.

• *The status of your physical fitness does not affect your chances for promotion. As long as you remain on active duty, your name and records will be submitted to the selection board, which will consider Chief Warrant Officers (W-3) with your date of rank, for promotion to W-4. It is presumed that this board will meet in May 1957.*

The Warrant Officer Act of 1954, which governs warrant officer promotions, provides that physical standards for advancement shall be the same as those prescribed for retention on active duty.

Therefore, if you are selected for promotion, and the medical examiners determine that your physical condition is such to permit your retention on active duty, then you will be considered physically qualified for promotion to W-4.

No provisions are made under current law, nor is it the policy of the Chief of Naval Personnel to grant waivers for promotion in the case of individuals who are not physically qualified.

In your case, you are in a limited duty status until March '57. If at that time you are found fit for full duty you will be ordered to sea.

Therefore, if your condition is such that you are fit for limited duty only, you will most likely remain in your present billet.

When an individual has as much service as you, it is the policy to keep them on active duty until they complete 20 years' service, assuming that their services can be utilized.—ED.

Shipboard Church Services

SIR: Several years ago the Lay Leader Program was initiated for the benefit of ships which have no chaplains.

I understand this has worked very well in both ComDesLant and ComCruDesPac, and I would like to see it expanded to include all the auxiliary ships of the Navy, such as AOs, AEs, AGs, AOGs, etc.

To accomplish this I suggest that a board be established by the Chief of Chaplains to work with all qualified lay leaders toward the establishment of a military layman league. Volunteers among ordained and licensed ministers and other qualified lay personnel in the enlisted ranks could be certified by this board and authorized to hold religious services for their ships in addition to their regular duties. The board could also make sure that these men are furnished religious materials and assistance by the commands under which the ships operate (ComServPac, ComServLant, etc.).

All persons qualified to handle such matters would be registered with the central board and a monthly letter could be circulated among them for an exchange of information and ideas. They could also be furnished the names and addresses of others in the movement so that they could get together and help each other out or hold joint services.

I do not feel that the expenses of the program would be very great, while its advantages would far outweigh the cost.—S.L.P., SK1, USN.

• *The Lay Leader Program, which has the full cognizance and backing of the Chief of Chaplains, is being expanded throughout the Navy as rapidly as possible. Under it, almost 10,000 services, with an attendance of over 163,000, were conducted in 1955.*

However, it is felt that the best way to insure the continued orderly development of such a movement is to keep it under the supervision of local chaplains, rather than a central board for the whole Navy.

The various commands, following criteria established by Fleet and force chaplains, and upon consultation with local chaplains, appoint lay leaders for individual ships.

Fleet, force and district chaplains are constantly on the lookout for ways to help in the movement and are well equipped to furnish lay leaders with religious materials and assistance. Through conferences just for lay leaders, which are being held more and more by force and Fleet chaplains, an interchange of ideas similar to that which you propose is being accomplished.

If you're interested in joining the program we suggest you contact the chaplain of your command.—ED.

Obligated Duty for ET School

SIR: Upon being ordered to ET conversion school, I lacked three months on my current enlistment to have the obligated service required for that school. I was told that I must reenlist early or agree to extend my enlistment for two years or else I could not go to school. Accordingly I extended my enlistment for two years. Since then I have been told that I need have extended for one year only. If such is the case, is there any way in which I can have my extension reduced to one year?

What are my chances of getting recruiting duty? I have 53 months' sea duty and believe I am qualified in all respects.—W.R.O., ETC. USN.

• *You're correct, Chief. You could have extended your enlistment for one year only as long as that was sufficient to give you the required obligated service for ET school under the conversion program. If you desire you may submit a request to the Chief of Naval Personnel (Attn: Pers B222) requesting that your agreement to extend be reduced to one year.*

In regard to recruiting duty, you're out of luck. ET is a critical rate and is not being utilized for recruiting duty at this time.—ED.

Shipping HHE from Two Locations

SIR: I am currently serving on board a ship home-ported at Sasebo, Japan, and have been ordered to recruiting duty at Baltimore, Md. When I was transferred here, I was advised to leave certain household effects at home as they would be of no use to me in Japan.

I realize that I'm entitled to have my household effects I have here with me shipped to my next duty station, but what about those I'll need that the Navy advised me to leave at home?

Is there any way that I can get them shipped at government expense from my home to Baltimore?—W.J.L., HM1, USN.

• *Regulations authorize the shipment of household goods within the prescribed weight limits from an individual's last permanent duty station to his new permanent duty station.*

When an individual does not desire to ship household effects to his new station, he is not thereby prevented from making shipment from his former permanent duty station (including his home) to a later permanent duty station.

In your case, both the household goods you have with you in Sasebo and those at your home may be shipped at government expense to Baltimore, your next permanent duty station, provided the total of both shipments is within the prescribed weight allowance for your pay grade. Application for shipment of household goods located at your home should be supported by your orders to and from Japan.—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying The Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four or more months in advance.

• USS *West Virginia* (BB 48)—The second annual reunion will be held in Gardena, Calif., on 8 December. For further information and reservations contact R. S. Kronberger, 14928 Mariposa Avenue, Gardena, Calif.

• USS *Leedstown* (AP 73)—A reunion will be held on 10 November in New York City. For details write to Frank A. Wiseman, 126 West 82nd Street, New York, N. Y.

• USS *LST 865*—Former crew members and officers interested in holding a reunion with time and place to be decided by mutual consent, contact Don Schlosser, 1590 Frank Road, Columbus 23, Ohio.

• *Ex-Apprentices Association* — The 49th annual reunion of the men who took part in the round-the-world cruise on 16 Dec 1907 will be held on 14 December in the U. S. Grant Hotel, San Diego, Calif. For information write Harry S. Morris, 726 Second Avenue, San Diego, Calif.

Leave En Route for Separation?

SIR: I am stationed on Guam and from all indications I will be here at the time I am due for release from active duty.

I would like to take leave in Japan just before my discharge, proceeding directly from leave to a separation center. My dependents are here with me and would accompany me on leave, then proceed directly to my home in Hawaii.

Although my personnel office says it is not possible for me to take leave in this manner, I have recently talked to a person from another activity who is obtaining orders of a similar nature.

I am aware that my dependents and I are entitled to one leave during a tour of duty here, to either Hong Kong, Manila, or Japan on a space available basis, but we would much prefer to go in the aforementioned manner.

A clarification of this, with reference to applicable instructions, would be appreciated.—S. Y., CD2, USNR.

• *Leave to visit Japan should be taken during your regular tour of duty in Guam, since BuPers Inst. 1910.5C, paragraph 6(c), states that "Personnel transferred for separation shall not be granted leave en route."*—ED.

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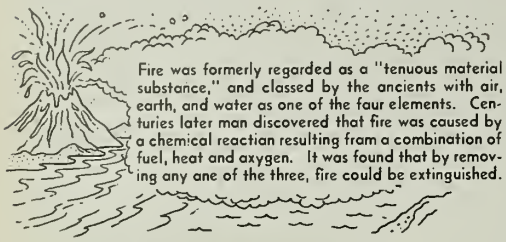
HOT FAC

POINTERS ON HO

The best way to combat fires is to pr
habit. Make a habit of keeping th

WHAT IS FIRE? FRIEND OR FOE



Fire was formerly regarded as a "tenuous material substance," and classed by the ancients with air, earth, and water as one of the four elements. Centuries later man discovered that fire was caused by a chemical reaction resulting from a combination of fuel, heat and oxygen. It was found that by removing any one of the three, fire could be extinguished.

IGNITION TEMPERATURE

In order to have a combustible fuel or substance take fire, it must be hot enough to burn and it must be heated to its ignition temperature. This is the temperature at which the vapor being given off by a substance will ignite spontaneously in the air. The substance does not have to be heated to this ignition temperature throughout to ignite.

TYPES OF FIRES

Fires in ordinary combustible materials (such as bedding, clothing, wood, canvas, rope, and paper) where the cooling effect of water is of first importance to extinguish them. The chief characteristic of Class A combustibles is the embers or ashes remaining after burning. Material of this type must be cooled throughout the entire mass before the fire is completely extinguished.

Fires in inflammable liquids (such as gasoline, oil, grease, paint, and turpentine). Materials of this type burn at the surface where the vapors are given off. Smothering or blanketing of the burning liquid is best for extinguishing this type of fire.

Fires in electrical equipment where the use of a "non-conducting" extinguishing agent is of first importance. In most electrical fires it will be necessary to de-energize the circuits (cut off the electricity) before any progress can be made.

HEAT IS TRANSMITTED BY

1 CONDUCTION

Heat is transferred through a substance by direct contact. Thus a thick steel bulkhead with a fire on one side causes heat to be given off in adjoining compartments through the steel by conduction.

2 CONVECTION

The heated air and gases rise from a fire bringing heat to all other combustible substances within reach.

3 RADIATION

Heat is transmitted in all directions and no medium is required. It is this radiation which causes the feeling of heat when standing before on open fire.

DESTRUCTIVE FIRES A

MEN

Fires never simply happen. They must be caused, and men, women and children are nearly always responsible.

PERSONAL HABITS C

By being careful in the use of flame-producing tools and equipment aboard ship or station.

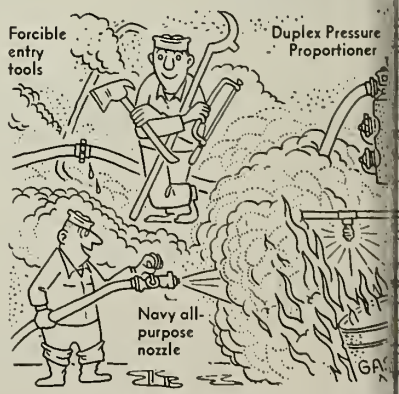
By being careful in the use of open lights and electrical equipment where an explosive vapor might exist.

PLAN OF ACTION

Give the alarm, notify at least one other person who can turn in the alarm.

When reporting the give an accurate scription and locatio a clear voice.

EQUIPMENT



Many impartant pieces af fire-fightin passing af such apparatus as partab suits, lifelines, the handy billy and tus. Knaw where every piece af equ

ON FIRE

O PREVENT FIRES

Fire prevention must become a daily
d away and shipshape at all times.

ULT OF THREE CAUSES

VOMEN

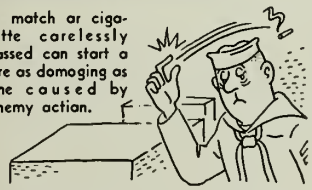
ledge of what
s, how it can
in and what
be done to
ent it, is essen-
but how alone
ufficient.

CHILDREN

Caution is often tiresome, yet it is the only foolproof approach to the prevention of destructive fires.

KE OR BREAK FIRES

A match or cigarette carelessly tossed can start a fire as damaging as one caused by enemy action.



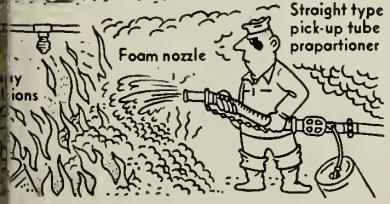
By obeying Safety Signs. Don't smoke in magazines, paint lockers, or while fuel or ammo is being taken aboard.

REPORTING A FIRE

ect from a safe dis-
ce and attempt to
ermine what is burn-

Do what you can to extinguish or control the fire until help arrives.

HTING FIRE



y
ions

t shown. Mention should be made in
guishers, installed systems, asbestos
and oxygen rescue-breathing appara-
ated. Know how to use it correctly.

FIGHTING FIRE — USING THE RIGHT EXTINGUISHING AGENT

Different types of fires are combated by different means: water used in a solid stream or as fine spray called fog; foam; carbon dioxide (CO_2); or steam. If you understand which of the above methods to use against a specific type of fire and the purpose behind it, you will be a valuable asset to a Fire Fighting Party.

CLASS A FIRES

Woodwork, bedding, clothes, combustible stores

USE

Carbon dioxide (CO_2)

Solid water stream

Low-velocity fog

High-velocity fog

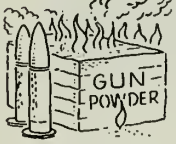
Films, celluloid, etc.

USE

Water immersion

Solid water stream

High-velocity fog

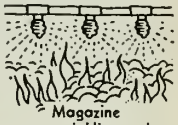


Explosives

USE

Water immersion

Solid water stream



Magazine sprinkling and flooding

Incendiary bombs

USE

(Throw overboard)

High-velocity fog

Sand

CLASS B FIRES

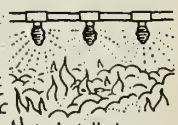
Gasoline, kerosene, fuel oil and diesel oil

USE

CO_2, foam or fog

Low- or high-velocity fog

Fog spray CO_2 (fixed system)



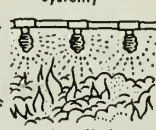
Installed sprinkling system

Paints, spirits, inflammable stores

USE

CO_2 extinguishers

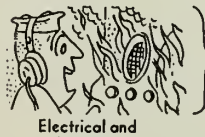
Low- or high-velocity fog



Installed sprinkling system

Foam or steam smothering

CLASS C FIRES



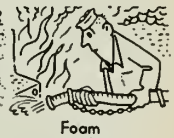
Electrical and radio apparatus

USE

De-energize affected circuits

CO_2

High-velocity fog

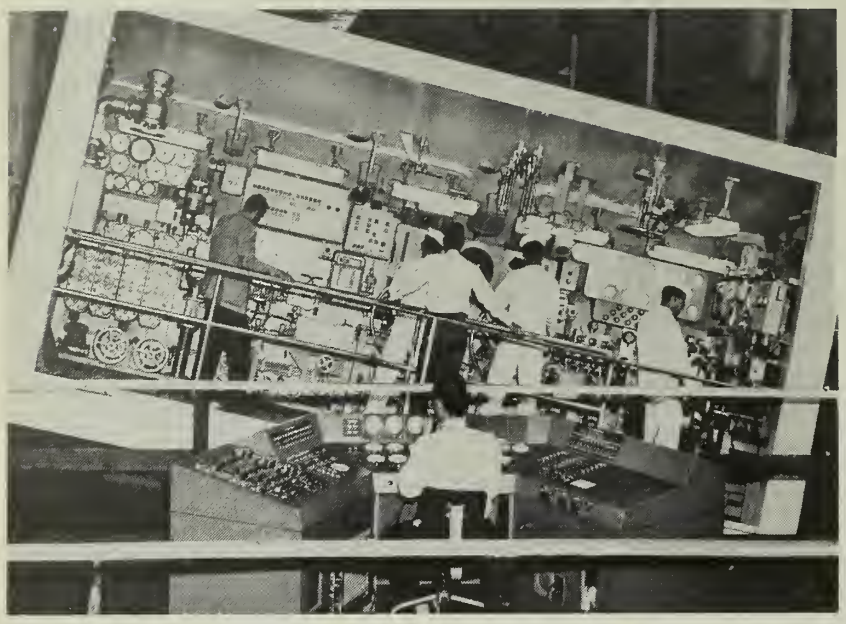


Foam application

KEEP YOUR SHIRT ON — DON'T PANIC

Any clothing which covers your skin protects you in case of fire or explosion. Bare skin is cooked instantly by a flash from an explosion. If your clothes catch fire, don't run. This fans the flame; lie down and roll up in blanket, coat, or anything at hand.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



'ROCK 'N ROLL' SUB STYLE—Operator puts new Submarine Simulator into dive while future sub men at New London school get the feel of taking her down.

Navy Nuclear Reactor

The first controlled release of atomic energy in the nation's capital using a nuclear reactor was achieved in September as scientists started the Naval Research Laboratory's new atomic reactor. However, it will be several months before the reactor is officially placed in regular operation.

The reactor, of the so-called "pool" type, will be used as a major new research facility for the laboratory's investigations in physics, chemistry, metallurgy, and other scientific fields, including problems in reactor technology.

The Navy nuclear reactor is the first research reactor to be constructed, owned and operated by an agency of the Defense Department.

The reactor and its facilities for research are unclassified.

36,000-Mile Cruise

Uss *Intrepid* (CVA-11) has returned to the New York Naval Shipyard for an extensive conversion and modernization program, after concluding a NATO exercise cruise in the Mediterranean of more than 36,000 miles.

The itinerary of *Intrepid* included Cannes, France; Naples and Genoa, Italy; Salonika and Athens, Greece; Palma, Majorca; and Gibraltar.

During the flattop's six-month cruise, her planes flew a total of 11,061 flight hours in training missions. She has a crew of 3000.

YESTERDAY'S NAVY

On 2 Nov 1943 American cruisers and destroyers turned back a Japanese naval force in the Battle of Empress Augusta Bay to save our Bougainville beachhead. On 7 Nov 1861 the Navy's gunfire drove Confederate defenders from Port Royal, S. C., to give the Union a vital base for Civil War naval operations. On Nov 8 1942 an Allied naval force landed troops at Casablanca, Oran and Algiers in the North African invasion of World War II. On 28 Nov 1775 the first Navy Regulations (principally the work of John Adams) were adopted by the Continental Congress.

Dry Land Dives

An elaborate new electronic training device, called the Universal Submarine Simulator, has been built to furnish dockside training for new recruits.

Submarine reactions are simulated from a control room mounted on a hydraulically actuated cradle anchored in concrete. It is run by a roomful of electronic computers which act as its engineroom, diving planes, ballast system, and "ocean."

When staffed by a crew of trainers, the control room will start up, dive, turn, and climb. At the direction of an instructor it will run into rough weather, fire torpedoes, develop a leak or engine failure, or simulate other emergencies. Steering and diving controls, switches, and lights, operated by students and instructors, feed signals into the simulator's computers, which figure out what a submarine would do under the circumstances.

By adjustment of its computer system, the simulator can be made to duplicate the control characteristics of all the various types of submarines now in use, plus a few still on the drawing boards.

Neptune on Skis

There's going to be skiing in a big way at the South Pole.

Four jet-equipped P2V-7 *Neptune* patrol bombers are being fitted with Bunyan-size skis for duty in the Antarctic. Measuring five feet wide and 16 feet long, the skis made of composite aluminum alloy and steel will be attached to the two-wheel main landing gear. A smaller ski will be mounted on the airplane's nose landing gear.

Provisions are being made for the wheels to remain stationary while the skis can move up or down, thereby permitting landings on either skis or wheels. When the wheels are retracted the skis serve as landing gear doors.

Each of the polar *Neptunes* will contain its own auxiliary power unit, insuring a source of power for take-offs from remote areas, and special heating equipment to provide hot air to the engines for preheating.

Ships in Arctic Operation

Navymen in 34 ships are now headed Stateside, or have already returned, from a series of "real cool" operations which began in May. They were part of a force of 114 Navy, Coast Guard, Maritime Administration, MSTS and Royal Canadian Navy ships operated by the Military Sea Transportation Service to resupply DEW Line radar stations and other isolated outposts in the Far North.

Nineteen of the Navy ships participated in Project 572 West, Pacific phase of this year's DEW Line sealift to the Arctic, and seven were assigned to the Atlantic phase of that operation. Another six served in the SUNEC project, carrying supplies to Air Force bases and other outposts in Northeast Canada, Labrador and Greenland; one carried supplies to Department of Interior sealing stations in the Pribilof Islands; and one took part in the MONA LISA project.

Here's a listing of Navy-manned ships involved:

PROJECT 572 WEST

USS *Eldorado* (AGC 11)
USS *Burton Island* (AGB 1)
USS *Atka* (AGB 3)
USS *Staten Island* (AGB 5)
USS *Carter Hall* (LSD 3)
USS *Gunston Hall* (LSD 5)
USS *Requisite* (AGS 18)
USS *Grapple* (ARS 7)
USS *Current* (ARS 22)
USS *Grasp* (ARS 24)
USS *Safeguard* (ARS 25)
USS *Elkhorn* (AOG 7)
USS *Tombigbee* (AOG 11)
USS *San Bernardino County* (LST 1110)
USS *Chittenden County* (LST 561)
USS *Dunn County* (LST 742)
USS *Hillsborough County* (LST 827)
USS *Lincoln County* (LST 898)
USS *Mahoning County* (LST 914)

PROJECT 572 EAST

USS *Edisto* (AGB 2)
USS *Ashland* (LSD 1)
USS *Lindenwald* (LSD 6)
USS *Shadwell* (LSD 15)
USS *Donner* (LSD 20)
USS *San Marcos* (LSD 25)
USS *Fort Mandan* (LSD 21)

SUNEC

USS *Rushmore* (LSD 14)
USS *Casa Grande* (LSD 13)
USS *Preserver* (ARS 8)
USS *Opportune* (ARS 41)
USS *Hoist* (ARS 40)
USS *Avenge* (MSO 423)

PRIBILOF ISLANDS

USS *Washburn* (AKA 108)

MONA LISA

USS *Whitemarsh* (LSD 8)

Welcome back. You're just in time for a warm Stateside winter.

Commendation for Submarine Sailor

"Outstanding courage . . . initiative . . . inspiring actions"—these are standard expressions, and may be found in any one of a thousand citations and commendations for one thing or another. Frequent use has not dimmed their value, however, but has served to point up the qualities displayed innumerable times by Navymen when disaster threatens.

One example is furnished by the case of Charles E. Payne, TM1(SS), USN, who was recently presented the Navy Commendation Ribbon with Metal Pendant at ceremonies aboard USS *Pomodon* (SS 486). The award recognized the heroism displayed by Payne when escaping hydrogen gas from *Pomodon's* batteries exploded in the submarine's forward torpedo room last year while she was docked at Hunter's Point.

Immediately after the explosion "Payne unhesitatingly entered the smoke-filled forward torpedo room in order to evacuate casualties. Although forced from time to time to go topside for fresh air, he continued to aid in the evacuation of the dead and injured and to help fight the fire until compelled to go to the shipyard infirmary for treatment of smoke inhalation. Later he returned to his ship and continued to assist in controlling the fire until forced to leave for the infirmary a second time."

Payne's Commendation Ribbon with Metal Pendant, accompanied by a citation over the signature of Secretary of the Navy Charles S. Thomas, was just one of 48 such awards made in the past year.

Money and Muscle Saver

A real back-saving gimmick has been developed by the Norfolk Naval Supply Center. This gimmick promises to save a lot of sweat and sore muscles as well as saving taxpayer dollars in warehouse operations throughout the Navy.

The device is a rectangular steel frame with eight moveable steel straps that fits on a forklift truck. Its purpose is to move loaded storage bins without disturbing their contents.

The forklift is driven to the storage bin where it lowers the device down on top of the bin. The straps are then bolted to it. Contents undisturbed, the bin section is then lifted onto the dock trailer.

When the trailer has been towed to another location, another forklift outfitted with another bin lifter can repeat the process of removal.

ROUGH GOING — Destroyermen of *USS Stembel* (DD 644) muster seamanship for approach to *USS Yorktown* (CVA 10) for refueling in stormy waters.

TAKING REVIEW at Long Beach, during 'Mrs. U. S. Navy' ceremonies, are (l to r) VADM Holloway, SecNav Thomas

Locker Music

Almost everyone at one time is addicted to some hobby or other. To the delight of the enlisted personnel of the staff of the Airborne Early Warning Wing Atlantic in Argentia, Newfoundland, Airman Apprentice Frank Westin's avocation is one that can be shared by all.

His major interest, electronics in general and hi-fidelity sound in particular, has provided many hours of diversified entertainment pleasure for his 60 shipmates.

Westin's "Operations Control Center," a six-foot by two-foot locker, is a maze of electrical gear which includes a three-speed phonograph, pre-amplifier, amplifiers, short wave receiver, speakers, a raft of phonograph records and a variety of not-so-easily described tools and electronic equipment.

Because of Westin's interest, the enlisted men of the unit are now enjoying TV. The television set, a gift to the enlisted personnel by one of the officers of the AEW staff, was in need of some repairs when first received. Westin formed a damage control party of one and plunged into his box of electrical items to remedy the set's ills. With soldering iron and an assortment of transplanted parts he soon had the set in 4.0 working condition. The addition of the TV set necessitated an antenna. So Westin went steeplejack to achieve the desired effect.

Westin's short wave radio is the newest addition to his collection, obtained through a swap for a tape recorder before World Series time. What's he striking for? AT, of course.—Don Wozniak, JOSN, USN.

House-Hunting for a Battalion Overseas Is Big Success

Finding a house for just one family can be a tough proposition, even in the States, but what would you do if you had to find 23 houses for 23 families overseas? This was the problem that faced Cargo Handling Battalion Two when it was preparing for a home-port switch from Guam to Sasebo, Japan.

To be eligible for concurrent travel, the families of battalion personnel had to accept private Japanese housing and the housing had to be located before the move. The task of finding living quarters fell to LT G. B. Halperin, SC, USN, who set out for Sasebo on his expedition about a month ahead of the scheduled transfer.

There, with valuable assistance from local naval personnel, the battalion's house hunter negotiated with Japanese real estate men and searched and searched. He returned to Guam two weeks later to report his mission accomplished. The housing had been found and arrangements had even been made to outfit the 23 places with initial supplies of soap, soap powder, light bulbs, basic stocks of easy-to-prepare food items, furniture, stoves and refrigerators.

The move itself went off without a hitch. Two planes of the Fleet Logistic Air Wing sped the Navymen and a total of 59 dependents to Japan and MSTS hauled the battalion gear, household goods and vehicles. The family pets made the MSTS trip too—demonstrating that even cats and dogs can get into the act when the Navy goes all-out to take care of its own.

Navy Training in Jets

Naval aviation training is undergoing a revision of its curriculum and schedule which will better enable it to meet the demands of the all-jet naval air force of the future.

The plan provides two major changes in the flight training program. Future jet pilots will take attack-fighter training in the T-28 *Trojan* and ultimately in the basic jet trainer, while multi-engine students will fly the SNJ single-engine and SNB multi-engine trainers and later, the T-28 and S2F in training.

By 1960 it is anticipated that the attack-fighter training program will be conducted in jet aircraft operating from jet facilities at NAAS Whiting Field and the new jet base in the Greater Pensacola complex.

Preflight training will remain basically the same. After eight weeks of primary training at NAAS Corry Field, 56 per cent of the students go to NAAS Whiting Field for VF/VA basic jet training while 44 per cent take up the VS/VP phase at NAAS Saufley Field.

Jet students will spend 18 and one-half weeks at Whiting Field, making the transition from the T-34B to the T-28, and receiving instruction in navigation, radio, for-

mation flying, night instrument flying and aerobatics. Then they go to NAAS Barin Field for five weeks of gunnery exercises and carrier qualification.

Future multi-engine pilots will take their next phase of instruction at Saufley Field, spending 16 weeks learning formation flight, precision flying, night flight and aerobatics. Upon completion of this phase they move to NAAS Barin Field for eight weeks of instruction in radio instruments, day and night navigation and carrier qualification.

The new program will give pilots a total of approximately 156 hours of flight time under instruction, as compared to 160 hours under the present course.

NIGHT FIRE DRILL sends crew members of *USS Sierra* (AD 18) into swift action. Fire drills like this keep Navymen throughout the Fleet in fire fighting tirm.

They Cured Lots of Headaches

A thousand or so aches, pains and bruises per day can mean a lot of headaches for someone, but the hospital corpsmen acting as pharmacists at U. S. Naval Hospital, San Diego, Calif., handle the situation with ease.

During the first six months of 1956, the pharmacy and its "branch office" at NAS North Island filled a total of 155,000 prescriptions without charge to Navymen and their dependents. More than 60 per cent of these prescriptions were destined for outpatients — retired personnel and dependents from all branches of the armed forces.

During July, nearly 20,000 prescriptions were filled solely for outpatients. Waiting time is reduced to a minimum by a continuous process of prepacking and compounding.

Fifty gallons of liquid prescriptions for internal consumption—65 per cent of the total—are compounded at the naval pharmacy each week. 1200 gallons of cough syrup are dispensed each year.

15,000 Guests Come Aboard—and BM Wins Popularity Contest

Visiting hours are common occurrences aboard *USS Northampton* (CLC 1) when in port, but the ship was not entirely prepared for 15,000 unexpected guests during a stopover at Istanbul, Turkey.

Early in the afternoon, the officer of the deck and six sideboys were ready to render honors to departing guests of Commander Cruiser Division Four, when a swarm of bees approached the ship.

One of the members in the oncoming air group swooped down for a quick investigation, looked interested, then landed aboard, followed quickly by the rest of the party. They appeared to be especially attracted to the forward accommodation ladder.

With honors for the departing visitors completed, the crew now turned to for the job of handling the uninvited guests. Senior boatswain's mate of the watch, Charles H. Edwards, BM2, volunteered to take care of them. He had raised bees back home in Calhoun, Ga.

With aid from various storerooms, a pasteboard box and cheesecloth face mask were soon placed in operation. Edwards began scraping off the bees—gently—with his bare hands. He confidently explained that there was virtually no danger of stings when the bees are handled properly.

BEE-HANDLING BM2, C. H. Edwards, takes bees in hand to move them from *Northampton*.

The ship's company was willing to take his word for it.

When the job was completed, the final count was 14,988 (approx.) in pasteboard box, seven flying aimlessly out of reach and five casualties—all on the bees' side.

No one suffered stings, and as the operation was completed just in time for the bees to make the 1800 boat, they were swiftly transported to the Fleet landing at no expense to the government.

Ashore, the problem of what to do with 14,988 bees was solved when they were gratefully accepted by the policeman on duty at the landing. He too was a keeper of bees and member of a bee club.

—Tom Carlson, JO3, USN

WESTERN SHARPSHOOTERS who defeated East in 1956 All-Navy matches include Navy winners in National Rifle and Pistol matches. (l to r) Kneeling: D. McCoy, I. N. McKee, and A. W. Sievers. Standing: D. R. Sherman, A. A. LeTourneau, D. O. Pineo, F. F. Darton, and V. H. Farr. *Right*: Capt E. E. Hedblom (MC) eyes target.

Rifle and Pistol Matches

Navy's Rifle and Pistol teams made a final showing in the National Rifle and Pistol Matches held at Camp Perry, Ohio, this year. The event marked the second time an All-Navy team had been entered in the past 25 years.

In the National Trophy team pistol matches, the Navy squad finished sixth out of 67 teams while the team in the National Trophy rifle matches finished 19th out of 90.

The most outstanding individual performance by a Navy shooter in the national matches was made by Chief Machinst Offutt Pinion, USN, of NAS Atlantic City, N. J. Pinion ousted defending world and 1952 Olympic champion Huelet Benner, Army master sergeant, in the International Free Pistol Match by a decisive 11 points.

Pinion also won first place in the International Aggregate, plus six other pistol medals, including a bronze medal in the National Trophy Individual pistol match. CWO Pinion was the only Navyman to be selected to the 1956 American Olympic pistol squad.

John Lucas, ADC, USN, of Fleet Air Service Squadron Three at NAS Norfolk, Va., just barely missed winning the National Trophy Individual pistol match by one point. Marine Lieutenant Bill McMillan took first place honors with a 291 score. Chief Lucas, incidentally, won four other individual pistol awards.

Ralph C. Edwards, AMC, USN, of NATTC Memphis, Tenn., broke the old national record for the National Trophy Individual rifle match with a resounding 245 score, but could only place second. Marine Staff Sergeant V.D. Mitchell scored an astounding 246 out of 250 with 19 V's to win first place.

Edwards, who just this year qualified as a Navy Distinguished Pistol shot, was high Navyman in the President's rifle match with a 144 score and was 12th in the Match Rifle Open Championship.

There were a number of other Navymen who won honors in the 1956 matches. David E. Myrick, HM1, USN, of NAS Pensacola, Fla., won 14 expert pistol medals, including 2nd Expert in the Grand Aggregate.

Captain E. E. Hedblom, MC, USN, of Operation Deepfreeze, won three individual pistol medals, including his second gold medal in the National Trophy Individual matches. Captain Hedblom, who was officer-in-charge of the All-Navy team for the second consecutive year, also entered rifle competition for the first time in his career. The Navy medico was the only sea-service shooter to win a medal in the Navy Cup Match. Dr. Hedblom also placed in the sharpshooter class in the Service Rifle Grand Aggregate.

High man for the Navy team in the Service Rifle Grand Aggregate was Arthur W. Sievers, AOC (AP), USN, of NAS Brown Field, San Diego. Chief Sievers, the only Navy Smallbore rifle competitor, won three medals in the match.

In the Roumanian Trophy team match, the All-Navy team members were handicapped in that they had only three match rifles with which to compete. Despite this obstacle, which is similar to trying to practice baseball without a ball, the Navy Blue team finished 10th out of 73 teams in the Expert Class and the Gold team placed 4th out of 10 teams in the Sharpshooter Class.

The team from NTC Great Lakes, which was equipped with match rifles, won the championships in the Marksman Class of this match.

The All-Navy Rifle Team also competed in the Herrick Trophy Match, which is fired at 1000 yards. The team finished up 22nd out of 51 Expert teams, although they again competed without match-conditioned rifles.

One of the most renowned of Navy rifle shooters to compete in this year's National Matches was Captain T. Oscar Dahl, USN. Captain Dahl is the only Navyman to hold both the Distinguished Rifle and Distinguished Pistol awards. He returned to competition this year after a 25-year lay-off and finished as 4th ranking Navyman in the National Trophy Individual Rifle Match.

Navymen winning two medals each were: Victor H. Farr, GMC, USN, of NAS North Island, San Diego, rifle and pistol; M. E. Hen-

drix, ADC, USN, of NAS Pensacola, Fla., two pistol medals; and E. J. Artels, AMC, USN, of VP-21, at NAS Brunswick, Me., two rifle medals.

Winners of one medal each were: Norman C. Wettestead, ICC, USN, of NTC Great Lakes, rifle; D. R. Sherman, GMC, USN, NTC San Diego, Silver Medal in 1000-yard Wimbledon Match; Ivan N. McKee, GMC, USN, NTC San Diego, pistol; G. P. DeFino, TM1, USN, NAS North Island San Diego, pistol; and John C. Ketzler, GM1, USN, NTC Great Lakes, pistol.

Navy's sixth place pistol team was made up of Lucas, Pinion, Donald C. McCoy, AOC, USN, and William H. Mellon, AOC, USN, both of San Diego. The rifle team was composed of Captains Dahl and Hedblom and CPOs Edwards and Sievers.

All told, Navy participants in the 1956 National Rifle and Pistol Matches picked up 63 medals and trophies. In addition, this year's team showed tremendous improvement over the performance of last year's squad.

This year's All-Navy team did an excellent job, considering the problems they were faced with. Next year, it is expected that an even better team will be entered in the National Matches, capable of competing on an equal footing with the cream of the shooters from the Marine Corps, Army, Air Force, Coast Guard, police and civilian clubs.

Yards to Meters

Since most of the American track records are in yards and the Olympic running is on the metric system, here's an easy chart that you may want to copy for future reference. These are the metric equivalents in relation to yards.

100 meters—109 yards, 1 foot, 1 inch.

110 meters—120 yards, 10.7 inches.

200 meters—218 yards, 2 feet, 2 inches.

400 meters—437 yards, 1 foot, 4 inches.

800 meters—874 yards, 2 feet, 1 inch.

1500 meters—1640 yards, 1 foot, 3 inches (or 119 yards, 1 foot, 9 inches short of one mile).

5000 meters—Approximately 3.1 miles.

10,000 meters—Approximately 6.2 miles.

SIDELINE STRATEGY

THE U.S. NAVY will be well represented in the 1956 Olympics in Australia, both among the competitors and the spectators. A number of Navy ships, including USS *Lexington* (CVA 16), USS *Bremerton* (CA 130), USS *Bream* (SSK 243), USS *Ernest G. Small* (DDR 838), USS *Harry E. Hubbard* (DD 748), USS *McKean* (DDR 784) and USS *Alfred A. Cunningham* (DD 752), will be in Australian waters and will make a call at Melbourne during the time of the Olympic Games.

To date, 17 Navymen have qualified for berths on the various Olympic teams. Still to be determined at press time were places on the weightlifting and boxing teams. Navymen were competing in both trials.

Those Navymen already qualified for the American Olympic team are: Jack Davis, Milt Campbell and Ben Garcia, *track and field;* Allen Bell, *cycling;* Bill Andre and Sewall Shurtz, *fencing;* James Fifer, Dan Ayrault and Roger Bullard, *rowing.*

Reid Patterson, *swimming;* Offutt Pinion, *pistol;* Pete Blair, *wrestling;* Ferdinand Schoettle and Robert Stinson, *yachting;* Russell Dermond and John Pagkos, *canoe;* and Hugh Wiley, member of the *equestrian* team which competed in the summer games.

★ ★ ★

The United States contingent, as well as athletes from the other nations, will be housed in a huge "Olympic Village" specially constructed for this event. It will take over 2200 people to run the village. Included in this working group will be 1200 waitresses, 200 chefs, 50 kitchen assistants, 150 interpreters, 100 administrative people, and 500 maintenance employees. Over 160 chefs have been imported from other countries.

★ ★ ★

The Main Stadium in Melbourne will seat 110,000 spectators. The stadium also contains 50 broadcasting studios, 41 dressing rooms, administrative offices and a communications network that would do justice to a small city. . . . About 800 athletes from 60 countries will compete in 33 track and field events to be held in the Main Stadium. To control these events, more than 300 officials will be needed. . . . According to Olympic rules, even the officials must be "pure" amateurs. . . . It is expected that some 1,200,000 tickets will be sold to the various events in this year's Olympics. The actual attendance, will be much greater. For example, in the Main Stadium, some 800 seats have been reserved for the working press alone. This doesn't include the visiting press, radio and TV people, and cameramen. . . . In staggered start races, such as the 200- and 400-meters, each runner will have a loudspeaker beside him. Each speaker is electrically connected to a lapel transmitter on the starter so that his commands and the pistol shot will reach all competitors at the same time.

—Rudy C. Garcia, JOC, USN.

THE BULLETIN BOARD

Facts for EMs Planning to Take February Advancement Exams

ONCE AGAIN you will have an opportunity to advance in rate. Examinations are scheduled this February for all ratings in pay grades E-4 through E-7, except for the PI and AL ratings which are being consolidated with other ratings.

Advancement opportunities continue to be excellent in most ratings, but plenty of good hard study will be necessary if you are to meet the competition. To help you, your commanding officer has been alerted to step up your in-service training so that you will be prepared to face the Big Day.

Examinations will be held on these dates for advancement to the following grades:

- Pay grade E-7 (CPO) — Tuesday 5 Feb 1957
- Pay grade E-4 (PO3) — Thursday 7 Feb 1957
- Pay grade E-5 (PO2) — Tuesday 12 Feb 1957
- Pay grade E-6 (PO1) — Thursday 14 Feb 1957

Examinations will be held for:

- Advancement in rate of USN and USNR personnel on active duty with the Regular Naval Establishment and Naval Reserve personnel in training and administrative billets with the Naval Reserve (TAR).
- Change in rating from AL to AT. No exams will be provided for the AL rating.
- Change in rating from PI to LI. No exams will be provided for the PI rating.
- Change in rating to GS, GF and AQ.

SNs attached to a command having an allowance for PHs may participate in the exam for PH3, if qualified.

As usual, it will be necessary to apply quota restrictions to certain rates owing to:

- The total number of personnel in the rate or rating exceeding the requirements.
- The total number of personnel in a pay grade exceeding the requirements for that pay grade.
- Limitations on the total number of petty officers that may be on active duty in the Navy.

"We're millionaires Joe! Millionaires, we can live like kings now!"

USN and TAR personnel in pay grade E-3, who are recommended for advancement and nominated to participate in the ET, FT, AD, AC, AO, AQ, AB, AE, AM or PH examination for pay grade E-4 will be examined for advancement to an activated selective emergency service rate only. (See below for a list of these rates).

Personnel identified as strikers for a selective emergency service rate may advance only to the status Emergency Service Rate. If not included in this category, you will be nominated for the selective emergency service rate for which you are considered best qualified on the basis of in-service training or demonstrated ability.

USNR personnel, except TARs, may be examined and advanced to any related emergency service rate in their path of advancement even though such rate has not been activated for USN and TAR personnel.

(For example, if you are a Reservist you may be examined and advanced to either FTM3, FTU3, FTA3, FTL3, FTE3 or FTG3. If you are a Regular Navyman or a TAR, you could not be examined for or advanced to FTG3, since it has not been activated.)

Separate examinations will be held for the new signalman and quartermaster ratings. Qualifications Change No. 7 to the *Manual of* for advancement are included in *Qualifications for Advancement in Rating* (NavPers 18068, Rev. 9-52).

Performance tests prepared and distributed for the old (combined) quartermaster rating will be administered to personnel who may be nominated for advancement in the signalman of new quartermaster ratings. The new qualifications required for advancement in these ratings will include the performance test standards to be used in scoring performance tests for the February and following examinations. (Advance information on these standards were included in BuPers Notice 1418 of 10 Sep 1956.)

The CAA certificate requirement for advancement to all pay grades in the air controlman rating is waived for the February exam for air controlmen who are not assigned to control tower duties.

All performance tests must be taken before the date of the service-wide competitive examinations.

Here is a list of the emergency service rates in which personnel being examined for pay grade E-4 may compete next February:

***Electronics Technician*—ETN3, ETR3, ETS3**
***Fire Control Technician**—FTM3, FTU3, FTA3, FTL3, FTE3**
***Aviation Machinist's Mate**—ADR3, ADJ3**
Air Controlman—ACW3, ACR3, ACT3**
***Photographer's Mate**—PHG3, PHA3**
***Aviation Ordnanceman*—AOU3, AOT3**
***Aviation Fire Control Technician*—AQF3, AQB3**
***Aviation Boatswain's Mate**—ABU3, ABG3**
***Aviation Electrician's Mate*—AEM3, AEI3**
***Aviation Structural Mechanic*—AMS3, AMH3**
***Parachute Rigger*—PRS3, PRM3**

***Only Reserve personnel, excluding TARs, are permitted to participate in the examination for: FTG3, ADP3, PHR3, PHL3, PHM3, ABA3.**

****Personnel participating in the examination for ACW3 will take the RD3 examination.**

Personnel will not be examined for the general service rates of ET3,

FT3, AD3, AC3, PH3, AO3, AQ3, AB3, AE3, AM3, or PR3. Regular Navy and TAR personnel will be examined only for advancement to the appropriate selective emergency service rate.

Stenographic performance tests are no longer waived. All methods of taking dictation (including Stenomask) are acceptable in fulfilling stenographic performance test requirements. If Navy-provided stenotype or Stenomask equipment is not available when you take the performance test, the equipment must be furnished by you.

Reimbursement Due for Moving HHE Between Certain Dates

If your pay account was checked for excess weight because of a transfer to a duty station you may, under certain limited conditions, be entitled to a refund.

As a result of passage of Public Law 823, 84th Congress, if you were transferred to a duty station outside the continental United States or in Alaska from the United States *before* 10 Jul 1952, the weight limitations established by the Department of Defense Appropriation Act of 1953 are not effective provided you were transferred:

- To any one or more *other* duty stations outside the continental United States or Alaska *after* 9 Jul 1952 and before your transfer back to the United States; or
- Back to the United States under orders which relieved you from a duty station outside the continental United States or Alaska *after* 9 Jul 1952, and *before* 1 Jul 1953.

As you know, you are entitled on each transfer, to transportation, packing, crating, temporary storage, drayage and unpacking of your household goods. If you have made a repayment because the net weight of your household goods and personal effects exceeded the weight limitations (of Section 632 of the DOD Appropriation Act of 1953), you may be paid the amount involved, if otherwise proper.

If you received orders between the dates cited above and your pay account was checked because of weight limitations, it is suggested that you submit a claim for reimbursement to the Officer in Charge, Navy Regional Accounts Office, Code FF, Wash. 25, D. C.

Latest List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number. Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in September.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan.

The Left Hand of God (604) (C) (WS): Drama; Humphrey Bogart, Gene Tierney.

A Day of Fury (605) (C): Adventure Drama; Dale Robertson, Jock Mahoney.

Africana (606) (C); Documentary; No cast.

The Wild Dakotas (607); Western; Bill Williams, Jim Davis.

Meet Me in Las Vegas (608) (C): Musical, Dan Dailey, Cyd Charisse.

A Man Called Peter (609) (C) (WS): Biographical Drama; Richard Todd, Jean Peters.

Star in the Dust (610) (C): Western; John Agar, Mamie Van Doren.

Crashing Las Vegas (611): Comedy; Leo Gorcey, Huntz Hall.

Screaming Eagles (612): Drama; Tom Tryon, Jacqueline Beer.

New Faces (613) (C): Musical; Eartha Kitt, Robert Clary.

Chief, you better square away that new striker about mine-sweeping duty.

Daddy Long Legs (614) (C) (WS): Musical Drama; Fred Astaire, Leslie Caron.

Three for Jamie Dawn (615): Crime Drama; Laraine Day, Richard Carlson.

Over-Exposed (616): Drama; Cleo Moore, Richard Greene.

The Gamma People (617): Drama; Paul Douglas, Eva Bartok.

Serenade (618) (C): Drama; Mario Lanza, Joan Fontaine.

The Seven Year Itch (619) (C) (WS): Comedy; Marilyn Monroe, Tom Ewell.

The Killing (620): Murder; Sterling Hayden, Coleen Gray.

Nightmare (621): Drama; Edward G. Robinson, Kevin McCarthy.

Fury at Gunsight Pass (622): Western; Richard Long, Lisa Davis.

Fastest Gun Alive (623): Adventure Drama; Glenn Ford, Jeanne Crain.

Guys and Dolls (624) (C): Musical; Marlon Brando, Jean Simmons.

The Leather Saint (625): Comedy Drama; Paul Douglas, John Derek.

Terror at Midnight (626): Mystery; Scott Brady, Joan Vohs.

Last of the Desperados (627): Western; James Craig, Margia Dean.

The Tender Trap (628) (C): Comedy; Frank Sinatra, Debbie Reynolds.

Study Courses Ready for SSOs and Watch Officers

Two new officer correspondence courses are available at the Naval Correspondence Course Center.

Special Services (NavPers 10969-A) is a four-assignment course evaluated at eight Naval Reserve points credit. This course replaces the previously offered course entitled *Welfare and Recreation* (NavPers 10969). Personnel who completed the earlier course will receive additional credit for NavPers 10969-A if otherwise eligible to receive credit in this subject.

The Watch Officer (NavPers 10719) is a three-assignment course evaluated at six Naval Reserve points credit.

Application for enrollment should be made on form NavPers 992 (Rev 10/54 or later), forwarded via official channels to the Naval Correspondence Course Center, Bldg. RF, U.S. Naval Base, Brooklyn 1, N. Y.

Here's Another Way to Win Your Four-Year College Education

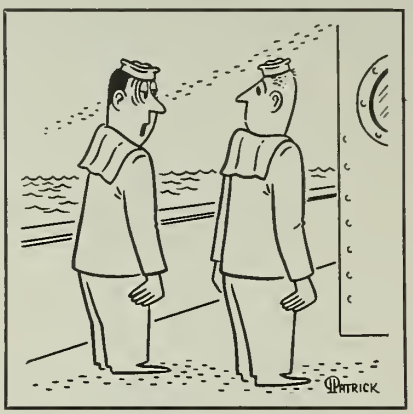
LIKE TO RECEIVE a four-year college education at no cost to you while serving on active duty in the Navy? It can be done if you are qualified and are selected for the Navy Enlisted Advanced School Program. Applications must be received by the Chief of Naval Personnel before 31 December.

Here's the story: Because of the ever increasing complexity of technical equipment in present day naval ships and aircraft, the Chief of Naval Personnel considers it essential to increase in every way the competence and skill of enlisted personnel.

To help achieve this competence, a program providing a total of four years of college level training in civilian universities and advanced naval schools has been established for selected petty officers.

These four years will not be continuous. Maximum periods of two years, with service and operating assignments of at least four years between training and education assignments will be the schedule.

So that the Navy will receive some benefit from this specialized training, you will be required to obligate yourself for two years of service for each year of education. Thus, if you were to complete the entire program, it will be necessary to serve 12 years on active duty in the naval service after your enrollment.



"Whose turn is it to say something funny for this cartoon?"

If selected, you will be ordered to the Naval Preparatory School, NTC, Bainbridge, Md., for approximately nine weeks, reporting on 1 June of the year in which you are selected. You will then receive orders for school to commence the fall term. The first period of training will consist of two school years. During summer vacation you will be ordered to duties appropriate to your rating and consistent with your academic program. You will receive normal leave during the Christmas holidays and other breaks in the academic year.

Following this two years' schooling, you will return to the Fleet and will be assigned general duty within your rating for four years. At the end of this period and if still qualified, you will be eligible for duty for the second phase.

Each of the two educational and training phases will count as a normal tour of shore duty. If you have had some previous college education it may be incorporated into this program.

It might also be noted that you will continue to be eligible for advancement in rating under the same regulations applicable to your rating group.

The program will not jeopardize your selection opportunity for officer status, including LDO and warrant grade, or any educational programs available to officers in these categories.

The program is open only to men. To qualify, you must:

- Be a third class petty officer or above, in any rating. Earlier, only certain ratings were eligible.
- Have at least three years' active naval service and not have reached the age of 25 by 1 July of the year originally selected.
- Be a high school graduate or possess high school level GED test scores in the 90th percentile or better in certain portions. High school transcripts must be received by the Chief of Naval Personnel (Attn: Pers B2133) in time for selection. If you do not make the deadline on this, you will not be considered for selection this year.
- Have GCT plus ARI equal to 118.
- Have six years' obligated service as of 1 July of the year in which you are selected.
- Be physically qualified.
- Be a citizen of the United States.
- Be recommended by your commanding officer.

Your marital status is immaterial. You may be either married or single. A security clearance will be required when you are selected.

Further details may be found in BuPers Inst. 1510.69A.

Naval Communication Station Is No Mail Clearing Outfit

Look, fellas, if you want to communicate—by mail—with anyone in the operating forces, it's really quite simple. No need to say anything at all about Naval Communication Station. That's for something else. Just write the man's name on the outside of the envelope, followed by his rank or rate, serial or service number, see? Then you write his division, vessel or station and, if appropriate, Fleet Post Office. The June 1956 issue of ALL HANDS tells you all about it on page 45.

The CO of the Naval Communication Station in Washington tells us, more in sorrow than anger, that he's running into a considerable administrative problem because so many of you are addressing your letters to him instead of where you want them to go. He wants us to do something about it.

So we are and this is it and we quote:

"As you know, this is a communication station purely — with the assigned mission of 'providing communication support to the naval establishment' by primary and relay circuits. It is unfortunate that so many personnel have given such a literal interpretation to Naval Communication Station.

"I am sure you will agree that anything we may do to speed personal mail directed to the members of the armed forces on its way is well worth any effort."

We certainly do agree, Captain, and that's why we say:

Look, fellas, it's really quite simple . . .

New Manual of Qualifications For Warrant Officers Will Be Distributed In January

The long-awaited *Manual of Qualifications for Warrant Officers* (NavPers 18455) will be ready for distribution to all ships and stations in January.

The manual is designed for use as a guide in the selection of personnel for appointment to warrant officer status, determination of warrant officer complements and allowances, distribution and assignment, development of training requirements and curricula, preparation of competitive examinations for advancement, and career planning for enlisted personnel.

The new manual contains qualifications requirements for each warrant officer category and designator and provides basic and comprehensive warrant officer occupational information.

It lists those duties which warrant officers should be capable of performing and those knowledges which they should possess in order to carry out their administrative, supervisory, and technical responsibilities.

Beginning with general qualifications, listing requirements of a general nature applicable to all warrant officers regardless of category or designator, and dealing primarily with military qualifications, the manual is further divided into sections containing professional qualifications applicable to specific warrant categories.

Each "professional" section is divided into three main parts. The first contains a brief summary statement of duty requirements for each warrant officer category. It is followed by "performance" and "academic" sections.

The "performance" section lists those duties and responsibilities which are normally required of a warrant officer in the performance of his billet assignments which are capable of demonstration. The "academic" section lists those knowledges which a warrant officer should possess in order to carry out his assigned duties and responsibilities.

The manual will include separate sections for each of the following 24 categories:

Aviation Operations Technician (711); Boatswain (713); Aviation Ordnance Technician (721); Surface Ordnance Technician (723); Ordnance Control Technician (724); Underwater Ordnance Technician (733); Mine Warfare Technician (734); Aviation Maintenance Technician (741); Machinist (743); Equipment Foreman (749); Electrician (754); Construction Electrician (759); Aviation Electronics Technician (761); Communications Technician (764); Electronics Technician (766); Ship Repair Technician (774); Building Foreman (779); Ship's Clerk (782); Bandmaster (785); Supply Clerk (798); Medical Service Warrant (817); Dental Service Warrant (818); Aerographer (821); Photo (831).

HOW DID IT START

Amphibious Warfare

Little was heard of amphibious operations until World War II, which produced the greatest series of landing operations in history.

The magnitude in size and number, as well as the diversity of the landings throughout the vast Pacific, in Europe, the Mediterranean and in North Africa, created the impression that amphibious warfare was something new.

It's not. Amphibious landings have been made in all parts of the world as far back as when recorded man first took to the seas to wage war.

The first amphibious landing on record goes back more than 3000 years. It occurred when the Greeks made a half-legendary attack upon the city of Troy after crossing the Aegean Sea.

Some 700 years later, Darius the Great, the Persian ruler, launched a water-borne attack against the Greeks. The idea for our LSTs of today was conceived from landing craft with runways for horses that Darius had built for his attack in 490 B.C.

During early times many other amphibious operations were recorded—some successful, some failures. Julius Ceasar landed two Roman legions on the coast of Kent in 55 B.C. and the following year crossed the Thames with five legions. Another amphib operation worthy of note is the British invasion of Normandy in July 1346, almost 600 years before the greatest amphibious assault in history—on D-Day in World War II—on the same shores.

The first U.S. amphibious operation was made in 1776 when sailors and marines stormed ashore in the Bahamas. During the next 165 years, U.S. amphibious operations remained something of an oddity (however, just under 200 were recorded during that period).

The U.S. first began "large-scale" amphibious training in 1898. This resulted in the development of rapid ship-to-shore movements and improved landing tactics. It really paid off during the Spanish-American War when U.S. troops successfully seized Guantanamo Bay, Cuba.

As early as 1902 the Navy and Marine Corps teamed up and began specialized amphibious training. Shortly thereafter an advanced base regiment was organized and trained regularly with fleet units. (In World War I large-scale landings were made by the British during the Dardanelles Campaign, but the campaign was a failure.)

During the 25 years leading up to the invasion of Guadalcanal, the first major invasion of World War II by American forces, great strides were made by the U.S. in developing doctrine, organization, tactics and techniques in this type of warfare. The Navy and Marine Corps developed new equipment and established a workable doctrine for both troop and naval components in an amphibious attack force.

Much to our advantage, the years of 1935 through 1941 were devoted to the application, test and experimentation of these tactics. During that period Navy and Marine units carried out the first modern landing exercise to be made by U.S. forces.

That was the beginning, but as recorded in history, it was far from the last. Almost every major offensive campaign launched by the U.S. during WW II was initiated by an amphibious assault.

Amphibious operations were again keynoted during the Korean War, and in the event of future wars, this type of warfare will no doubt continue to play a vital role, with additional features of transport copters launched from helicopter assault ships.

Roundup on Rules, Regulations and Requests for Shore Duty

SHORE DUTY IS AS POPULAR as steak with most Navymen, and Bureau-controlled duty on the beach is easier to get these days, under the provisions of BuPers Inst. 1306.20C. The new instruction governing the sea/shore rotation of enlisted personnel lists three major changes which will benefit most Navymen who want to come ashore for a spell, in addition to offering a roundup of information you should know.

The three major changes in the Bureau's shore duty program are all in your favor.

- Required sea duty time has been shortened for most ratings.
- Obligated service time has been shortened for most ratings.
- Your name may now be placed on all three Bureau lists (Shore Duty, Instructor Duty, Recruiting Duty) instead of on the first two only (but you still may NOT appear on both a Bureau list *and* a Fleet Shore Duty Eligibility List).

Eligibility Requirements. To be eligible for a normal tour of Bureau-controlled shore duty, you must first have accumulated the continuous sea service shown for your rate in SDEL chart on page 48. Then, you must indicate in your request willingness to extend your enlistment if necessary for one year, computed from the date of transfer as listed in the Bureau transfer directive. Previously it was necessary for most men in pay grade E-5 and above to have at least two years of obligated service time remaining after the date specified in the transfer directive.

Incidentally, you can compute your own sea duty to determine your eligibility for placement on the Bureau SDEL by following these rules:

1. The date of commencing sea duty is the date of first reporting to a permanent sea or overseas duty station—or one of the activities listed below as sea duty for rotational purposes.
2. All duty outside the continental U. S. is considered sea duty.
3. Duty inside continental U. S. for a period of less than 12 months between sea assignments shall be considered sea duty (unless your return to a sea assignment is the result of your own action after you have received orders to shore duty.
4. A tour of shore duty which is interrupted during the first 12 months by three or more months of continuous sea duty will result in all prior service of the tour being counted as sea duty.
5. If you reenlist under broken service, or are a member of the Naval Reserve who was on inactive duty for more than three months before reporting to active duty, you do not receive credit for sea duty in previous enlistments or tours of active duty.
6. Time served under instruction for purposes of conversion to ET, FT, AT, GS, GF, or AQ will be considered as "dead time" for sea/shore rotation purposes.

> ***Future Plans on Sea/Shore Assignment***
>
> ***The instructions concerning assignment to shore duty on this and the following pages will remain in effect for a large number of ratings until the end of 1957.***
>
> ***However, commencing in the first quarter of next year, a new "Sea Survey System" will get under way, gradually replacing the Shore Duty Eligibilty List Program. The SDEL List starting on page 48 of this issue will be the last of this type to be published.***
>
> ***A forthcoming issue will report the facts on the new sea/shore rotation system.***

Shore Duty Requests. Requesting Bureau shore duty is primarily a matter of meeting the above eligibility requirements and of forwarding through channels a properly-marked copy of NavPers 2416 (Rev. 5-51), the Shore Duty Request Card (or check the instructions listed below for Instructor or Recruiting duty). The shore duty card provides space for indicating two specific areas in which you desire shore duty, and one space for indicating whether you will accept shore duty "Anywhere, U. S." This general choice *must* be marked either "yes" or "no." Putting your "X" by "yes" will usually get you ashore faster.

In the space for your specific choices you should indicate the naval district you desire ("11 ND," for instance), and you may also indicate a specific locality ("Long Beach, Calif."). Indicating a specific locality within a naval district is no assurance that you will get it, but the district commandant or CNATRA will consider such preferences in making the ultimate assignment.

Once the initial shore duty request has been submitted, you are responsible for keeping the Bureau informed of any changes in your status or choice of duty as listed on the card. You should notify the Chief of Naval Personnel by submitting a new card, prominently marked "CORRECTED CARD," when one of the following changes occurs:

- Change of duty choice.
- Change of duty station.
- Change of rate.
- Change of dependency.
- Change of Navy Job Code number.
- Upon reenlistment.

These corrected cards will be acknowledged by the Bureau only when you specify a change in your choice of duty.

If you desire to cancel your shore duty request, you must notify the Chief of Naval Personnel (Attn: Pers-B2115) by means of a letter, forwarded via your commanding officer. Note, however, that requests for removal from the shore duty list or for changes in your choice of duty will not be approved unless they have been received and processed within the Bureau before a transfer directive has been forwarded.

You should note, too, that special instructions govern the sea/shore rotation of personnel in the following categories:

- Fleet shore duty.
- Naval security group, special weapons personnel and the air controlman rating.
- Machine accountants.
- Those desiring Instructor Duty (See BuPers. Inst. 1306.22B).
- Those desiring Recruiting Duty (See BuPers Inst. 1336.1A).
- Enlisted women (See BuPers Inst. 1306.10B).

• Personnel of the submarine force who are qualified in submarines and who meet the eligibility requirements set forth in Inst. 1306. 20C may request a normal tour of Fleet shore duty by forwarding a request to the Chief of Naval Personnel (Attn: Pers-B2115). The following notation should appear on the Shore Duty Request Card: "Reserve Training Submarine — Opposite Fleet." If consistent with requirements of the service, the Chief of Naval Personnel will forward the request to the appropriate submarine force commander, who may then request that the man be ordered to a designated reserve training submarine for a normal tour of Fleet shore duty.

Another thing you should know about sea/shore rotation is the general Bureau policy governing shore duty. For instance, the SDEL is restricted to deserving personnel and the Chief of Naval Personnel may reject requests of personnel otherwise eligible if there is a history of disciplinary offenses.

And you are liable to penalties under certain circumstances. For instance, if upon receipt of orders to a normal tour of shore duty you do not have the required obligated service and refuse to execute an Agreement to Extend Enlistment to obtain the obligated service, you will be required to accumulate an additional two years of continuous sea service before you are eligible to submit another request for shore duty. If your own action results in termination of your shore duty before you have completed the "normal tour" listed for your rating, you will be considered to have served a complete tour of shore duty.

Otherwise, the factors which determine when a man will be transferred to a normal tour of shore duty from the SDEL are: (1) The length of continuous sea service; (2) the location desired; and (3) the need for your rating in that location. It is impossible to predict when you may expect transfer once your name is on the list, and the Bureau does not desire correspondence requesting your standing on the SDEL. By using the tabulation of the shore duty eligibility list which appears in ALL HANDS approximately every six months, you can figure for yourself just about where you stand on the list.

To complete this roundup of information on Bureau shore duty, here are the meanings of a number of terms which are necessary to a good understanding of sea/shore rotation and the directives governing the program:

• *BuPers Shore Duty* is duty in an activity of the shore establishment within the continental U.S. not assigned to a Fleet. This includes (1) all continental naval districts and river commands (except such duty afloat in these districts and commands as has been designated sea duty for rotation purposes); (2) Naval Air Training Command and (3) bureaus, boards and offices of the Navy Department and their field activities (except such duty as has been designated sea duty for rotation purposes) .

• *Fleet Shore Duty* is duty in a

WHAT'S IN A NAME

Days of Dover

Early in 1947 a doughty old gunboat, manned only by memories, was used by a San Francisco barge company to remove a sunken tug from the waters off Hunter's Point. After raising the hulk the gunboat carried it out to sea, where both tug and gunboat were to be sunk together.

The tug settled to the bottom quickly, but at the last minute the gunboat broke away and shot her bow 75 feet into the air in a last gesture of farewell. Then the waters closed in over one of the oldest, most colorful ships to see service in World War II.

She was USS *Dover* (IX 30), whose career had spanned half a century, three wars, and service under 30 skippers, more than half of whom had gone on to flag rank. Three times she had been a proud flagship for admirals and her bow had sliced the world's waters from the Yangtze to the Amazon and the Indian Ocean to the Great Lakes. For most of her lifetime she had been USS *Wilmington* (PG-8), but in 1941, when that name was passed on to a new cruiser, she was renamed *Dover*.

Launched 19 Oct 1895, *Dover* was commissioned two years later. In the Spanish-American War she captured two enemy schooners and two fishing vessels, helped destroy several Spanish gunboats and fought valiantly against enemy shore batteries at Cardenas and Manzanillo, Cuba. After the war she made an extended good-will tour of South America, which included an independent cruise up the then little-known Orinoco and Amazon Rivers.

In 1900 she was ordered to the Far East, where the Boxer Rebellion and Philippine Insurrection were making things hot for Uncle Sam. She arrived in Manila 21 Jan 1901 after a three-month voyage via Gibraltar, the Suez, Red Sea and Indian Ocean, and for the next 21 years remained in Asiatic waters, either in the Philippines or China. Her World War I service consisted of Philippine patrols out of Olongapo, Cavite and Mariveles Harbor and in the post-war years she was back in China, where she was flagship of the Asiatic Fleet and later, of the Yangtze River Patrol.

Dover came home from the Far East in September 1922, after a difficult, stormy voyage that had forced her to accept a tow by USS *Sapelo* (AO 11) from the Azores to Portsmouth, R. I. Then followed 20 years as a training ship for Naval Reserve units on the Great Lakes and St. Lawrence River. During that period she was selected for another good-will voyage, returning to the Canadian government a Parliamentary Mace which had been captured by American troops in the War of 1812.

World War II saw *Dover*'s return to salt water and about the toughest trip she ever made. In November 1942 she was picked to serve as a training ship for armed-guard crews at San Francisco. On the way there she survived a fight with ice fields off Quebec, a 90-mile gale, a collision with an ice-breaker, another tangle with some barges in the East River and a suspense-packed voyage through 3800 miles of submarine-haunted waters. But, she reached her destination and carried out her wartime duties with flying colors.

When the war ended *Dover*'s days were numbered. By the time she was finally sold on 30 Dec 1946 she was the oldest ship in full commission in the entire United States Navy.

Shortly afterward, the distinguished veteran was buried at sea.

Fleet activity based ashore within the continental U. S. At present there are some 140 activities under CinCLantFlt and some 80 activities under CinCPacFlt which are designated Fleet shore duty. Except for certain flight crews (listed below) duty in FLogWing and MATS squadrons based in the continental U. S. is also considered Fleet shore duty.

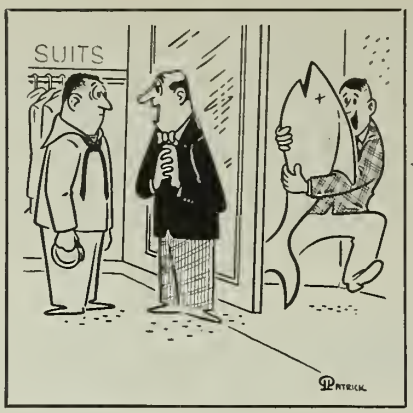
• *Overseas Duty* is duty performed ashore at naval activities beyond the continental limits of the U. S. and in non-rotated units.

• *Non-rotated Units,* for the purposes of sea/shore rotation, are defined as units which are permanently based or homeported outside the continental limits of the United States.

• *Normal Tour of Shore Duty* is one to which a man has been ordered as a result of his own request after having met the eligibility requirements established for such duty. In most cases a normal tour of shore duty is two years; however, for all YN, PN, JO, AC, TD and HMC, HM1, DTC and DT1 the normal tour is three years. HM2 and below and DT2 and below ordered to shore duty and subsequently advanced in rate to pay grade E-6 will be given a new tour date of three years from the date of first reporting ashore for permanent duty. A shore duty tour for personnel who, regardless of present rate, have never served at sea and who were assigned to shore duty upon completion of recruit training or as a designated striker upon graduation from a Class A school will be two years for USN, USNR and USN-S personnel in Aviation (Group IX), Medical (Group X) and Dental (Group XI) ratings; other USN personnel in the same situation will have a 15-month normal tour of shore duty, while the normal tour for USNR and USN-S personnel will be 12 months.

• *Completed Tour of Shore Duty* will normally be the completion of the time specified above. However, if the needs of the service require transfer before completion of the specified period, then continuous duty for a period of 12 months or more will be considered to have been a complete tour of shore duty. In exceptional cases, you may request a waiver of this rule, through channels, giving full justification.

• *Sea Duty,* in addition to the normal duty afloat, includes the following units and activities which are based ashore either on a full-time or part-time basis: Underway training units; Fleet training groups; amphibious operational training elements; Fleet mobile ordnance service units; Fleet mobile electronics technical units; construction battalions; U. S. Naval Facilities at Cape Hatteras, Cape May, and Nantucket; mobile construction battalions; beach jumper and beachmaster units; naval beach groups; underwater demolition teams; Fleet camera parties; cargo-handling battalions; explosive ordnance disposal units; ComPhibPac and ComPhibLant staffs; mobile boat units; SWULant and SWUPac; ComSubLant staff; ComBatCruLant staff; Commander Task Group 7.3 staff; ComFirstFleet staff; ComSecondFleet staff; designated vessels assigned to district commandants; and persons holding Group IX and Group X ratings who are attached to the Fleet Marine Force.



"Now if you'll wait a few minutes, I believe I can give you a good sharkskin suit, and cheap, too!"

They're Ready — Scalpel, Suture, Fog Spray and CO_2

"Every Navyman a Firefighter"—that's the theme of the story on page 2 and if you have any doubts about it, just ask anyone aboard the USS *Philippine Sea* (CVS 47).

In an effort to make *Philippine Sea* "the safest ship in the Fleet," the carrier's CO has established a training program in which every man aboard will take the fire-fighting course at Treasure Island.

When the skipper says "every man," he means just what he says.

Recent students at the T.I. fire-fighting school were none other than three of the *Philippine Sea*'s senior staff officers, the dental officer, ship's chaplain, and senior medical officer.

Like all other *Phil Sea* crew members, they took their turn at the nozzle, used fog spray and CO_2 extinguishers in the "learn by doing" training on how to put out all types of fires from Class A to C.

According to the staff of the school, this was the first time that senior staff officers have completed the fire fighting course at T.I.

New Enlisted Correspondence Courses Are Now Ready

Five new Enlisted Correspondence Courses are now available to all enlisted personnel.

Enlisted Correspondence Courses will be administered (with certain exceptions) by your local command instead of by the Correspondence Course Center.

If you are on active duty, your division officer will advise you whether or not the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have their courses administered by the Correspondence Course Center, just as in the past.

The new or revised courses are:

Course	NavPers No.
Draftsman 3	91487
Chief Engineman	91521
Quartermaster 1	91251-1
Construction Electrician's Mate 1	91570-1
Construction Electrician's Mate C	91571-1

The last roundup of Enlisted Correspondence Courses was in ALL HANDS, June 1956 (p. 50). New courses will be listed as soon as they are available.

Answers to Your Questions on Sea/Shore Rotation

Whenever there's a discussion among Navymen about sea/shore rotation, there are bound to be plenty of questions asked. Here's a typical list of questions — with the answers supplied.

The new sea/shore rotation instructions (page 44) outlines a new formula for computing when sea duty and shore duty begin. What about those cases where Navymen's tour dates have already been computed by the old method and these personnel scheduled for rotation accordingly? Will these dates have to be refigured and rotation rescheduled?

Yes. All computation must be made in accordance with the new regulations. However, the instruction (BuPers Inst. 1306.20C) also states that in any case when compliance with any provision of the instructions would result in severe hardship to any individual or unnecessary expense to the government that action may be withheld and the circumstances reported to the Chief of Naval Personnel for decision. This action should be taken in those cases where a recomputed tour date would create such a situation.

It is noted that the only reference to submarine personnel in the instruction is a paragraph stating that submarine men may request a normal tour of Fleet Shore Duty in a Reserve Training Submarine in the opposite Fleet. Does this means that the only shore duty that submariners may apply for is Fleet Shore Duty in the opposite Fleet?

Certainly not. Personnel qualified in submarines are eligible for all Bureau Shore Duty for which other personnel of their respective rates are eligible and *in addition* may apply for Fleet Shore Duty in the opposite Fleet.

I know of cases where SDEL (Shore Duty Eligibility List) requests are not being forwarded by commanding officers, but returned to personnel with such comment as "Resubmit after six (6) months on board" or "resubmit on completing overseas tour." This action does not seem to be in accordance with paragraph 15C of BuPers Inst. 1306.20C which states "applicants for Bureau of Naval Personnel Shore Duty are subject to no other eligibility requirements than those set forth in paragraphs 13, 14, 15 and 16 of this directive. All requests from personnel who meet the eligibility requirements prescribed herein shall be forwarded promptly by the Commanding Officer to the Chief of Naval Personnel." What about this?

In addition to the requirements of BuPers Inst. 1306.20C, *BuPers Manual,* Article B-1105, states:

"(1) Any person in the Navy making an official communication of any kind to the Chief of Naval Personnel or to any superior authority other than his immediate commanding officer, except as provided for in Navy Regulations, shall send the communication unsealed to his CO to be remarked upon by him and forwarded.

"(2) All officers through whom communications from subordinates are sent for transmittal to higher authority shall forward the same, if in proper form and language, as soon after receipt as practicable. The endorsement may be restricted to the term "Forwarded," but only if no opinion or comment is necessary."

There are cases where personnel cannot be *ordered* to other duty until they have completed a prescribed period on board their present activity, (such as the minimum tour at an overseas activity, the six-months-on-board requirement for newly commissioned or recommissioned vessels and personnel reassigned after graduation from certain schools, and "frozen" personnel assigned to units of special mission task forces), but this is not to be interpreted to mean these personnel cannot apply for assignment to a normal tour of shore duty during such periods. The requests of such personnel are placed in an inactive status on the SDEL until the prescribed tour requirements had been met, then placed on the "active" list.

"Nice to get back on dry land!"

It is noted that you do not list the sea duty requirements for commissarymen first class (pay grade E-6) with the primary job code of supervisor. How do CS1s with this job code find out their sea service requirements?

The sea service requirements for CS1s with a primary job code of supervisor were omitted from the instruction for a good reason — there are no billets ashore for them! Commissarymen of pay grade E-6 who have this primary job code should submit their SDEL card listing their *secondary* job code of Cook, Baker, or Butcher and are required to meet the requirements established for personnel with those job codes. Individually, in the near future it is expected that commissarymen will be detailed by rating alone without reference to job codes.

This new sea/shore instruction states men can apply for the Bureau Shore Duty Eligibility List, Recruiting Duty List and Instructor Duty Waiting List at the same time. Can we apply for all three lists with the SDEL Request Card (NavPers 2416, Rev. 5-51)?

No. Application for the SDEL is made by submission of the SDEL Request Card (NavPers 2416, Rev. 5-51); application for the Instructor Duty Waiting List is made by submitting the Instructor Duty Request Card (NavPers 1247, Rev. 6-53) and a request for Recruiting Duty is submitted in letter form as prescribed by applicable regulations.

Next question?

Check Your Status by Rate and ND Location

Every six months the chart on these and the following pages attempts to give you as accurate a picture as is possible of your standing on the Bureau Shore Duty Eligibility List.

The information contained in this chart is compiled just before deadline, but owing to time lapse during publication and distribution of ALL HANDS some of the information herein is unavoidably outdated when it reaches you. Keep this in mind when making your calculations.

Here is how to use this chart. Check down the left side until you find your rate. Then, check across to the naval district you requested.

- *Under each naval district you will note there are four columns. The first column shows the number of men of your rate waiting on the SDEL for that district.*
- *The second column shows the number of authorized billets allowed for your rate within that district.*
- *The third column shows the number of months of continuous sea duty the first man on the list has to his credit.*
- *The fourth column shows the number of months of continuous sea duty the fourth man from the top of the list has to his credit.*

That's it. You now have as accurate a picture of your relative position to the top of the SDEL as you could obtain by a visit, letter, or long distance call to the Bureau of Naval Personnel.

To show the use of this chart by example, let's say you are an AK1 with 28 months of continuous sea duty, and you desire duty in the Eleventh Naval District. Moving across the chart to where the AK1 and 11ND meet, you can see, in the first column under the district heading, that there are just six men of your rate on the list of 11ND.

In the next column you see 11ND has an allowance of 24 AK1 billets. In the third column you note that the top AK1 has 51 months of continuous sea duty, and in the fourth column you see where the fourth man from the top of the list has 23 months' continuous sea duty.

With your 28 months' continuous sea duty, you are obviously number two or three man from the top.

Now comes the crystal gazing as to just when the Bureau will reach your name on the list and order you to shore duty. Frankly, with the facts on this chart available to you, your guess is apt to be as accurate as any the Bureau can make. Various factors influence the issuance of orders and therefore only a general prognostication can be made.

Let's estimate that roughly one third of the AK1 billets currently being filled in the 11ND will become vacant within 12 months because personnel are completing their normal tours of shore duty. As you are 2nd or 3rd on the SDEL you may logically conclude that you probably will be ordered ashore within the next 12 months . . . provided other AK1s with more continuous sea duty do not apply for 11ND between now and time your name would normally reach top of the list.

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	ANYWHERE U. S. MOS. SEA DUTY		1ST ND				3RD ND				4TH ND				5TH ND				6TH ND			
							MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY	
			1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Boatswain's Mate	BMC	36	56	41	2	53	56	—	2	21	60	—	2	20	37	—	—	70	—	—	3	72	68	—
	BM1	48	137	77	12	30	89	65	15	13	108	84	19	11	177	87	10	58	68	60	24	74	82	69
	BM2	48	94	75	34	35	116	89	34	20	103	98	35	15	124	99	36	53	76	75	94	151	79	75
	BM3	48	81	79	30	31	74	72	29	10	98	74	31	7	89	84	34	26	109	76	84	112	104	74
	BMSN	48	99	68	6	X	99	69	1	X	73	—	2	X	60	—	2	X	91	—	8	X	99	62
Quartermaster	QMC	24	52	46	10	21	53	43	2	6	41	—	3	8	65	—	3	26	46	—	8	37	43	38
	QM1	36	109	68	6	19	124	57	4	7	122	40	4	10	103	43	5	16	67	56	9	42	74	69
	QM2	24	103	54	3	26	82	—	—	10	—	—	4	13	75	48	—	75	—	—	3	83	52	—
	QM3	36	61	57	4	13	78	35	4	1	102	56	2	1	76	—	1	15	48	—	6	17	56	47
	QMSN	36	56	52	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Radarman	RDC	18	106	25	3	0	102	—	2	1	59	—	1	1	91	—	1	15	19	—	1	6	110	—
	RD1	30	90	76	14	11	100	78	8	1	100	78	8	7	103	67	6	29	56	42	10	30	93	71
	RD2	18	31	—	—	35	—	—	1	2	78	—	—	9	—	—	—	63	—	—	—	70	—	—
	RD3	18	45	29	1	13	22	0	2	1	98	—	2	3	84	—	—	19	—	—	5	21	23	22
	RDSN	18	29	28	—	X	—	—	—	X	—	—	1	X	27	—	—	X	—	—	1	X	29	—
Sonarman	SOC	12	87	—	1	—	98	—	—	2	—	—	—	1	—	—	1	4	61	—	2	2	30	—
	SO1	24	86	66	5	5	93	56	2	2	89	—	6	5	91	56	1	13	30	—	6	8	68	48
	SO2	18	31	—	1	5	34	—	—	3	—	—	—	7	—	—	—	14	—	—	—	8	—	—
	SO3	18	40	—	2	3	45	—	—	0	—	—	—	2	—	—	—	11	—	—	—	2	—	—
	SOSN	18	—	—	1	X	49	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	53	—
Torpedoman's Mate	TMC	24	40	—	—	13	—	—	—	0	—	—	3	2	74	—	3	39	84	—	6	20	196	30
	TM1	30	52	—	1	16	60	—	2	1	101	—	5	4	169	61	8	57	174	66	1	15	116	—
	TM2	24	58	—	1	17	49	—	1	3	27	—	4	3	154	56	2	19	57	—	5	24	67	44
	TM3	18	—	—	1	18	26	—	—	0	—	—	1	0	21	—	2	4	42	—	4	10	46	22
	TMSN	18	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Gunner's Mate	GMC	48	—	—	4	7	306	54	5	1	86	72	5	2	123	60	5	8	63	56	14	12	116	63
	GM1	48	99	91	14	18	155	85	13	6	125	106	13	7	133	101	22	14	151	97	36	28	117	100
	GM2	48	76	65	19	25	83	75	16	4	175	83	10	9	85	73	28	49	81	75	31	58	99	75
	GM3	48	65	58	7	5	60	56	7	2	64	56	5	0	68	54	9	22	67	61	33	12	95	67
	GMSN	48	—	—	1	X	57	—	2	X	64	—	1	X	60	—	—	X	—	—	1	X	54	—

on Latest BuPers Shore Duty Eligibility List

Always remember when submitting your shore duty request that if you are primarily concerned with getting a billet ashore and have no compelling reasons for limiting your request for duty to a particular area, YOU WILL GET ASHORE FASTER IF YOU INDICATE YOU WILL ACCEPT DUTY "Anywhere U. S."

You should keep the following in mind as you study this chart:

- *The Bureau's Shore Duty Eligibility List is subject to frequent change as new requests are received. Although you might be No. 3 man this month, you could drop to No. 6 or No. 7 by next month, if other men of your rate submit requests for the district you have chosen and if these men have more sea duty than you.*
- *This chart shows your standing on the Bureau's SDEL only. It contains no information for men who have submitted requests for Fleet Shore Duty or for Recruiting or Instructor duty lists.*
- *Personnel who fall under any of the following categories are not included in the table below:*

1. Men serving on overseas duty or in non-rotated ships whose dependents are overseas with them and who have not completed a full tour of duty at that station.

2. Men serving on overseas duty or non-rotated ships whose dependents are not with them, but who have completed less than 12 months of a normal tour of duty in that location.

- *Ratings, such as MU, MA, CT, TD, AG and AC are not included because they are subject to special detailing.*

Notes

- *You'll see that the allowance column for each district on the chart below contains an "X" in the space opposite "designated striker" rates such as BMSN, GMSN, CN/CA, AN/AA, etc. This indicates that strikers are eligible to request this area. The number in the quota may not be given since strikers are included in a "package of billets" that the district is authorized for personnel in this rating category.*
- *In some cases the number of months shown in columns three and four under the district you have chosen would indicate that you are included within the top two or three men in the district for which you have requested duty. If you still haven't received your orders, this may be the reason: Although you may be among the top men in your district, you may have less sea duty than one or more men in your rate who request "Anywhere U. S." Such men receive first consideration for assignment to any naval district if they have more continuous sea duty than the men who have requested duty in a specific district.*

Therefore, when you check your standing on the SDEL, be sure to take a look at the first column, "Anywhere U. S."

If the person in your rate in that column has more continuous sea duty than you, there may be a delay in your orders until you finally have more sea duty than all those in your rate who request "Anywhere U. S."

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
4	12	74	49	9	9	52	46	19	72	73	54	16	40	64	59	4	31	86	57	—	46	—	—	1	9	39	—	BMC
10	9	72	66	5	16	58	54	31	43	99	67	11	41	91	69	10	24	105	61	10	53	77	61	4	24	81	52	BM1
56	49	76	75	50	28	102	94	53	74	75	74	24	48	75	73	24	24	75	73	25	34	91	74	12	12	99	75	BM2
45	7	87	83	46	2	102	84	49	48	75	72	32	16	99	81	22	20	75	73	20	36	81	74	15	16	73	62	BM3
1	X	72	—	4	X	78	56	5	X	68	57	3	X	124	—	1	X	67	—	2	X	57	—	—	X	—	—	BMSN
3	18	48	—	2	10	46	—	15	37	121	51	1	24	52	—	4	5	52	30	0	30	0	0	—	2	—	—	QMC
2	22	52	—	2	23	108	—	11	14	161	75	2	29	37	—	14	5	112	68	3	24	91	—	—	3	—	—	QM1
1	56	103	—	2	40	59	—	2	59	45	—	—	34	—	—	3	14	54	—	1	13	42	—	—	3	—	—	QM2
9	2	101	54	5	0	59	42	4	17	70	40	—	8	—	—	12	7	61	56	3	6	99	—	—	0	—	—	QM3
—	X	—	—	—	X	—	—	2	X	52	50	1	X	56	—	—	X	—	—	—	X	—	—	—	X	—	—	QMSN
2	2	25	—	3	4	116	—	4	5	106	22	2	3	47	—	1	1	22	—	4	4	53	33	—	0	—	—	RDC
6	13	77	73	5	21	99	60	23	39	111	90	7	14	92	59	2	4	98	—	—	8	—	—	—	0	—	—	RD1
—	36	—	—	—	26	—	—	—	90	—	—	2	29	31	23	—	8	—	—	1	10	62	—	—	1	—	—	RD2
3	1	29	—	9	6	29	24	8	18	31	22	5	4	54	22	3	2	43	—	5	3	30	22	—	0	—	—	RD3
—	X	—	—	—	X	—	—	—	X	—	—	1	X	28	—	—	X	—	—	—	X	—	—	—	X	—	—	RDSN
1	2	23	—	—	2	—	—	4	3	37	23	2	1	37	—	—	0	—	—	—	1	—	—	—	0	—	—	SOC
3	7	76	—	4	6	73	64	6	20	86	72	3	6	73	—	4	1	67	48	2	2	62	—	1	1	56	—	SO1
—	3	—	—	1	5	36	—	1	11	27	—	1	3	31	—	—	3	—	—	—	3	—	—	—	0	—	—	SO2
—	0	29	—	—	0	29	—	1	8	40	—	1	1	26	—	—	2	—	—	—	0	—	—	—	0	—	—	SO3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SOSN
1	6	56	—	3	3	56	—	12	18	82	57	2	7	68	—	1	7	98	—	—	4	—	—	—	0	—	—	TMC
5	3	94	52	1	10	58	—	4	21	72	45	—	3	—	—	—	10	—	—	—	4	—	—	—	0	—	—	TM1
1	11	68	—	3	10	157	—	3	30	61	—	2	7	45	—	1	15	40	—	—	1	—	—	—	0	—	—	TM2
—	0	—	—	2	0	52	—	—	10	—	—	—	1	—	—	1	13	40	—	—	0	—	—	—	0	—	—	TM3
—	X	—	—	—	X	—	—	1	X	52	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	TMSN
7	8	72	58	4	4	81	53	13	11	111	69	6	2	90	54	3	5	72	—	3	16	74	—	—	2	—	—	GMC
25	14	172	105	17	6	123	100	27	14	171	105	13	4	167	101	12	2	122	99	7	6	167	92	2	0	104	—	GM1
20	27	83	73	17	23	107	77	16	60	82	73	4	16	72	64	8	11	73	67	13	24	112	71	3	1	72	—	GM2
17	12	96	57	11	0	73	57	21	4	144	62	9	2	67	58	4	5	60	55	3	15	69	—	3	1	65	—	GM3
2	X	54	—	4	X	74	49	1	X	65	—	1	X	113	—	—	X	—	—	—	X	—	—	—	X	—	—	GMSN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	ANYWHERE U. S. MOS. SEA DUTY		1ST ND				3RD ND				4TH ND				5TH ND				6TH ND			
							MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY	
			1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Fire Control Technician and Fire Controlman	FTC/FCC	18	—	—	—	1	0	0	—	2	—	—	1	0	31	—	1	0	26	—	—	6	—	—
	FT1/FC1	18	—	—	5	1	113	90	3	3	96	—	3	1	102	—	9	1	116	91	3	4	65	—
	FT2/FC2	18	—	—	—	5	—	—	—	1	—	—	—	7	—	—	—	23	—	—	—	38	—	—
	FT3/FC3	18	—	—	1	1	53	—	—	1	—	—	1	0	69	—	—	2	—	—	—	2	—	—
	FTSN/FCSN	18	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Mineman	MNC	12	—	—	—	4	—	—	—	2	—	—	—	1	—	—	—	7	—	—	—	3	—	—
	MN1	12	—	—	1	6	136	—	—	3	—	—	1	1	40	—	—	8	—	—	—	2	—	—
	MN2	12	—	—	—	6	—	—	—	3	—	—	1	1	34	—	—	18	—	—	2	3	42	—
	MN3	12	—	—	—	4	—	—	1	6	17	—	—	1	—	—	—	20	—	—	1	5	20	—
	MNSN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Electronics Technician	ETC	12	13	—	1	7	58	—	1	3	39	—	3	3	100	—	—	12	—	—	2	19	22	—
	ET1	12	127	92	10	12	106	50	4	4	98	41	6	9	161	62	10	22	97	65	23	35	134	72
	ET2	12	27	24	3	14	24	—	1	7	24	—	2	13	27	—	—	25	—	—	2	50	24	—
	ET3	12	24	23	8	19	30	25	2	6	25	—	3	12	25	—	—	31	—	—	6	57	22	16
	ETSN	12	28	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Instrumentman	IMC	12	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—
	IM1	12	—	—	—	3	—	—	—	0	—	—	—	0	—	—	—	4	—	—	—	1	—	—
	IM2	12	20	—	—	0	—	—	—	0	—	—	—	0	—	—	—	4	—	—	—	2	—	—
	IM3	12	54	—	—	0	—	—	—	0	—	—	—	0	—	—	—	1	—	—	2	1	54	—
	IMSN	12	19	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Opticalman	OMC	12	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	OM1	12	—	—	—	0	—	—	—	1	—	—	1	0	56	—	—	0	—	—	—	0	—	—
	OM2	12	—	—	1	0	52	—	—	1	—	—	—	0	—	—	—	1	—	—	—	0	—	—
	OM3	12	25	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	OMSN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Teleman	TEC	12	30	25	1	1	22	—	1	2	30	—	1	4	26	—	—	10	—	—	3	14	29	—
	TE1	12	66	31	5	9	65	28	6	11	54	26	6	9	152	32	1	26	20	—	10	29	66	36
	TE2	12	79	38	3	10	40	—	6	11	77	42	3	13	79	—	3	42	31	—	5	35	61	29
	TE3	12	44	25	5	21	27	18	3	10	51	—	6	11	56	24	—	61	—	—	10	54	87	26
	TESN	12	52	17	2	X	52	—	—	X	—	—	1	X	20	—	—	X	—	—	—	X	—	—
Radioman	RMC	36	62	48	1	17	43	—	1	6	48	—	2	10	74	—	—	30	—	—	3	59	43	—
	RM1	42	92	57	11	27	79	69	13	4	108	80	5	14	76	52	6	39	55	50	13	65	105	73
	RM2	18	61	41	2	44	43	—	3	3	57	—	1	18	27	—	—	60	—	—	8	91	56	41
	RM3	18	24	22	5	35	23	21	6	9	38	21	3	17	23	—	2	58	21	—	3	83	22	—
	RMSN	18	27	—	—	X	—	—	—	X	—	—	1	X	41	—	—	X	—	—	2	X	27	—
Yeaman	YNC	12	24	11	1	14	36	—	1	17	48	—	—	19	—	—	—	38	—	—	5	47	21	16
	YN1	12	25	15	7	41	62	28	—	40	—	—	2	28	39	—	3	62	27	—	10	96	53	30
	YN2	12	84	15	1	63	16	—	1	50	16	—	2	34	59	—	—	99	—	—	3	126	32	—
	YN3	12	38	18	15	89	26	22	10	70	38	21	24	34	49	24	4	121	21	17	23	49	23	22
	YNSN	12	38	18	1	X	26	—	2	X	19	—	—	X	—	—	2	X	38	—	—	X	—	—
Personnel Man	PNC	12	—	—	—	9	—	—	—	6	—	—	—	4	—	—	—	25	—	—	1	28	15	—
	PN1	12	—	—	—	16	—	—	—	10	—	—	—	14	—	—	—	62	—	—	3	32	18	—
	PN2	12	—	—	—	27	—	—	—	19	—	—	—	9	—	—	—	89	—	—	2	53	20	—
	PN3	12	19	17	11	41	26	23	9	18	35	20	10	18	23	19	2	127	16	—	7	86	20	18
	PNSN	12	38	18	2	X	38	—	—	X	—	—	—	X	—	—	1	X	18	—	—	X	—	—
Storekeeper	SKC	24	29	—	1	15	25	—	4	12	68	29	5	11	52	29	—	36	—	—	—	37	—	—
	SK1	24	42	33	8	33	104	47	8	17	43	29	7	21	33	29	4	72	39	26	13	69	31	28
	SK2	18	40	28	3	46	32	—	5	20	47	31	4	28	49	30	3	93	49	—	11	89	48	39
	SK3	12	34	25	17	46	26	23	12	32	34	24	12	33	24	22	2	92	22	—	12	98	26	23
	SKSN	12	24	15	3	X	24	—	—	X	—	—	1	X	18	—	1	X	23	—	1	X	21	—
Disbursing Clerk	DKC	12	15	—	—	5	—	—	—	3	—	—	2	6	29	—	—	12	—	—	—	9	—	—
	DK1	12	22	15	—	11	—	—	3	3	28	—	—	7	—	—	3	22	16	—	—	22	—	—
	DK2	12	24	—	—	7	—	—	—	8	—	—	—	9	—	—	—	25	—	—	22	20	22	—
	DK3	12	21	21	8	10	23	21	5	6	25	21	3	8	43	—	—	32	—	—	7	33	23	20
	DKSN	12	24	—	1	X	14	—	—	X	—	—	—	X	—	—	—	X	—	—	3	X	22	—
Cammissaryman	CSC	30	89	47	4	27	51	33	1	4	47	—	2	11	45	—	—	48	—	—	8	36	54	44
	CS1	24	107	50	12	47	65	47	10	9	85	50	13	15	107	60	13	115	73	33	21	71	131	52
	CS2	24	54	43	16	85	66	60	15	18	91	66	20	19	109	62	4	195	58	23	31	145	56	52
	CS3	24	27	23	8	78	42	24	5	11	125	36	13	30	78	45	1	230	23	—	25	183	42	32
	CSSN	24	43	—	2	X	55	—	1	X	48	—	—	X	—	—	—	X	—	—	3	X	51	—
Ship's Serviceman	SH1(L)	48	110	106	13	4	108	101	4	11	90	73	6	4	103	68	7	18	112	74	20	8	114	101
	SH2(L)	48	106	103	15	0	108	98	7	0	104	75	9	0	105	99	13	0	105	103	24	0	113	93
	SH3(L)	48	84	76	17	0	97	75	15	0	94	64	12	0	91	67	13	0	99	63	33	0	105	75
(Laundry)	SHSN(L)	48	104	61	—	X	—	—	1	X	105	—	2	X	69	—	1	X	63	—	3	X	73	—
(Barber)	SH1(B)	36	56	—	—	8	—	—	—	1	—	—	—	2	—	—	—	20	—	—	1	36	56	—
	SH2(B)	36	51	—	1	0	125	—	—	0	—	—	—	0	—	—	1	0	56	—	1	0	106	—
	SH3(B)	24	99	73	—	0	—	—	3	0	115	—	—	0	—	—	1	0	45	—	4	0	101	42
	SHSN(B)	24	54	—	1	X	53	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
(Tailor)	SH1(T)	36	66	51	—	3	—	—	—	0	—	—	—	1	—	—	1	4	51	—	2	7	106	—
	SH2(T)	36	101	53	1	0	114	—	—	0	—	—	—	0	—	—	1	0	57	—	1	0	51	—
	SH3(T)	24	51	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	1	0	50	—
	SHSN(T)	24	51	—	—	X	—	—	—	X	—	—	1	X	43	—	—	X	—	—	1	X	21	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY					
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	BILLETS NO. OF	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	BILLETS NO. OF	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
—	2	—	—	1	1	70	—	5	2	80	61	—	1	—	—	4	—	79	24	—	2	—	—	1	1	27	—	FTC/FCC
7	2	105	92	6	1	136	50	12	1	141	75	3	3	83	—	3	2	109	—	2	1	102	—	4	2	105	—	FT1/FC1
—	18	—	—	—	8	—	—	—	23	—	—	—	18	—	—	—	5	—	—	—	6	—	—	1	3	28	—	FT2/FC2
—	2	—	—	—	0	—	—	—	8	—	—	—	0	—	—	1	0	56	—	—	0	—	—	—	4	—	—	FT3/FC3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	FTSN/FCSN
—	0	—	—	—	1	—	—	—	1	—	—	—	3	—	—	—	0	—	—	—	2	—	—	—	0	—	—	MNC
—	0	—	—	—	1	—	—	—	2	—	—	—	3	—	—	—	0	—	—	—	2	—	—	—	0	—	—	MN1
—	0	—	—	2	0	26	—	1	0	104	—	—	5	—	—	—	0	—	—	—	2	—	—	—	0	—	—	MN2
—	0	—	—	1	0	18	—	—	2	—	—	1	1	14	—	1	15	—	—	—	2	—	—	—	0	—	—	MN3
—	X	—	—	—	X	—	—	1	X	26	—	1	X	16	—	—	X	—	—	—	X	—	—	—	X	—	—	MNSN
2	8	106	—	—	5	—	—	6	22	149	33	3	8	116	—	2	7	63	—	1	15	15	—	—	4	—	—	ETC
2	18	58	—	4	17	96	38	18	28	122	64	7	24	97	62	4	16	127	23	5	30	79	15	2	4	67	—	ET1
3	18	25	—	4	17	26	21	3	44	85	—	4	33	87	25	2	20	24	—	—	37	—	—	—	7	—	—	ET2
1	20	18	—	14	14	39	22	6	49	47	18	4	38	24	16	6	19	24	17	2	33	22	—	—	5	—	—	ET3
—	X	—	—	2	X	65	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ETSN
—	0	—	—	—	1	—	—	4	0	146	87	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IMC
—	0	—	—	1	1	82	—	1	2	65	—	—	1	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IM1
—	1	—	—	1	1	20	—	—	2	—	—	—	1	—	—	—	0	—	—	—	1	—	—	—	0	—	—	IM2
—	0	—	—	3	0	29	—	1	0	56	—	1	0	30	—	—	0	—	—	—	2	—	—	—	0	—	—	IM3
—	X	—	—	1	X	19	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	IMSN
—	0	—	—	—	3	—	—	1	4	49	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	OMC
—	0	—	—	—	2	—	—	1	0	56	—	—	0	—	—	—	0	—	—	1	1	38	—	—	0	—	—	OM1
—	0	—	—	—	8	—	—	1	0	96	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	OM2
1	0	29	—	1	0	21	—	1	0	18	—	1	0	19	—	1	0	25	—	—	0	—	—	—	0	—	—	OM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	OMSN
1	7	15	—	1	5	67	—	—	10	—	—	5	11	30	23	—	3	—	—	3	16	25	—	—	1	—	—	TEC
—	16	—	—	6	8	92	28	7	21	65	32	5	26	29	18	2	6	34	—	13	23	83	29	1	3	17	—	TE1
3	14	42	—	2	15	22	—	3	37	23	—	2	34	28	—	2	12	34	—	18	42	43	32	—	0	—	—	TE2
4	25	34	16	8	21	53	21	6	53	23	20	8	50	22	19	1	10	54	—	68	74	32	28	—	0	—	—	TE3
—	X	—	—	1	X	15	—	—	X	—	—	—	X	—	—	—	X	—	—	4	X	23	21	—	X	—	—	TESN
3	17	193	—	—	10	—	—	16	40	170	58	3	26	58	—	9	8	165	59	1	40	38	—	—	0	—	—	RMC
9	18	58	52	15	9	72	65	15	51	98	56	8	43	81	57	5	23	63	50	7	59	92	48	1	0	48	—	RM1
2	34	22	—	5	14	94	52	5	71	64	29	5	68	61	30	2	29	54	—	3	84	32	—	—	2	—	—	RM2
3	23	31	—	8	13	47	23	2	65	23	—	3	59	24	—	—	29	—	—	3	83	67	—	—	0	—	—	RM3
—	X	—	—	1	X	50	—	1	X	23	—	—	X	—	—	1	X	23	—	—	X	—	—	—	X	—	—	RMSN
1	22	20	—	3	31	48	—	11	48	64	38	9	21	42	25	2	6	51	—	1	29	24	—	—	2	—	—	YNC
8	33	58	23	10	61	66	41	3	74	24	—	2	43	34	—	2	16	46	—	12	57	25	19	1	3	45	—	YN1
2	54	84	—	8	85	98	27	4	118	55	15	3	49	48	—	9	18	18	22	9	67	28	22	—	2	—	—	YN2
17	68	38	22	31	90	77	23	10	142	22	21	7	77	23	18	7	17	22	18	103	88	27	25	—	6	—	—	YN3
1	X	18	—	4	X	19	16	—	X	—	—	1	X	20	—	1	X	13	—	7	X	48	17	—	X	—	—	YNSN
—	14	—	—	—	19	—	—	—	29	—	—	—	14	—	—	—	6	—	—	—	9	—	—	—	1	—	—	PNC
2	29	17	—	—	44	—	—	—	64	—	—	—	25	—	—	—	12	—	—	—	23	—	—	—	3	—	—	PN1
1	31	40	—	—	63	—	—	—	93	—	—	—	33	—	—	—	9	—	—	—	31	—	—	—	4	—	—	PN2
2	43	18	—	16	81	30	23	6	152	22	19	1	40	19	—	3	12	22	—	9	31	27	20	1	7	19	—	PN3
1	X	21	—	—	X	—	—	1	X	17	—	1	X	15	—	—	X	—	—	—	X	—	—	—	X	—	—	PNSN
4	9	39	24	1	20	27	—	18	33	80	40	3	20	33	—	1	4	41	—	—	18	—	—	—	2	—	—	SKC
4	15	36	23	18	28	70	54	18	64	48	42	7	39	43	32	4	15	79	28	9	30	45	31	2	4	30	—	SK1
—	34	—	—	3	42	36	—	3	82	24	—	1	56	21	—	1	16	22	—	1	46	22	—	2	3	31	—	SK2
11	29	34	23	29	33	25	24	23	93	38	25	15	45	34	24	6	13	23	23	6	50	23	19	—	6	—	—	SK3
—	X	—	—	—	X	—	—	1	X	15	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SKSN
1	3	17	—	—	2	—	—	3	14	37	—	—	7	—	—	1	5	19	—	—	6	—	—	1	1	18	—	DKC
—	10	—	—	2	6	34	—	3	20	21	—	3	10	22	—	—	4	—	—	—	6	—	—	—	2	—	—	DK1
3	8	21	—	1	7	26	—	3	28	118	—	1	11	41	—	—	5	—	—	1	11	33	—	—	2	—	—	DK2
4	16	18	18	12	8	23	21	8	46	21	19	1	10	18	—	2	6	30	—	3	11	24	—	—	2	—	—	DK3
—	X	—	—	1	X	18	—	—	X	—	—	—	X	—	—	—	X	—	—	2	X	24	—	—	X	—	—	DKSN
7	22	78	40	2	20	82	—	27	44	73	58	4	36	51	45	6	10	89	57	1	17	33	—	—	7	—	—	CSC
8	41	38	28	14	87	62	39	19	116	126	53	5	47	50	24	11	13	61	38	8	41	110	38	—	8	—	—	CS1
14	61	127	56	11	134	55	35	10	221	73	39	4	82	43	23	12	30	47	37	8	75	39	32	5	8	39	28	CS2
20	73	49	37	9	226	23	22	11	241	54	29	3	87	34	—	4	24	58	54	2	59	21	—	—	9	—	—	CS3
1	X	73	—	1	X	105	—	—	X	—	—	—	X	—	—	—	X	—	—	2	X	66	—	—	X	—	—	CSSN
4	7	104	76	7	4	141	93	19	17	118	105	5	6	103	89	3	7	97	—	5	10	105	99	3	3	98	—	SH1(L)
13	0	100	85	12	0	106	92	25	0	103	100	16	0	99	54	6	0	99	74	12	0	105	77	5	0	104	69	SH2(L)
16	0	99	74	18	0	143	66	16	0	71	58	10	0	71	58	6	0	57	46	8	0	66	51	2	0	57	—	SH3(L)
1	X	56	—	—	X	—	—	1	X	126	—	1	X	72	—	1	X	104	—	2	X	71	—	—	X	—	—	SHSN(L)
—	5	—	—	—	8	—	—	2	48	55	—	—	10	0	—	1	8	61	—	—	14	—	—	—	6	—	—	SH1(B)
—	0	—	—	—	0	—	—	1	0	51	—	1	0	44	—	—	0	—	—	1	0	74	—	—	6	—	—	SH2(B)
—	0	—	—	1	0	50	—	5	0	99	43	3	0	54	—	1	0	125	—	1	0	25	—	—	0	—	—	SH3(B)
—	X	—	—	1	X	54	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SHSN(B)
1	4	62	—	1	5	49	—	3	11	67	—	—	3	—	—	—	1	—	—	—	3	—	—	—	0	—	—	SH1(T)
—	0	—	—	—	0	—	—	3	0	74	—	2	0	73	—	1	0	63	—	—	0	—	—	—	0	—	—	SH2(T)
—	0	—	—	1	0	51	—	—	0	—	—	1	0	5.	—	—	0	—	—	—	0	—	—	—	0	—	—	SH3(T)
—	X	—	—	—	X	—	—	1	X	51	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SHSN(T)

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	ANYWHERE U. S. MOS. SEA DUTY		1ST NO				3RD NO				4TH NO				5TH NO				6TH NO			
							MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY	
			1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
(Cobbler)	SH1(C)	36	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	1	0	92	—
	SH2(C)	36	—	—	1	0	56	—	—	0	—	—	—	0	—	—	—	0	—	—	1	0	97	—
	SH3(C)	24	97	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	SHSN(C)	24	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
(Store)	SH1(S)	48	87	62	—	12	—	—	3	8	107	—	1	11	62	—	1	44	93	—	6	62	80	51
	SH2(S)	36	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	1	0	59	—
	SH3(S)	24	27	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	SHSN(S)	24	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
	SHC	18	26	24	2	0	82	—	2	0	36	—	—	0	—	—	1	0	25	—	—	0	—	—
Journalist	JOC	12	—	—	—	2	—	—	—	1	—	—	—	2	—	—	—	4	—	—	—	1	—	—
	JO1	12	—	—	—	2	—	—	—	0	—	—	—	1	—	—	—	4	—	—	—	10	—	—
	JO2	12	—	—	—	1	—	—	—	0	—	—	—	1	—	—	—	2	—	—	—	8	—	—
	JO3	12	—	—	—	3	—	—	—	2	—	—	—	0	—	—	—	6	—	—	—	10	—	—
	JOSN	12	23	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	23	—	—	X	—	—
Lithographer & Printer	LIC/PIC	12	44	—	—	0	—	—	—	0	—	—	1	0	33	—	2	0	35	—	—	0	—	—
	LI1/LI1	12	91	34	2	4	101	—	—	0	—	—	2	2	91	—	1	0	35	—	—	0	—	—
	LI2/PI2	12	63	—	1	0	54	—	1	1	63	—	1	0	43	—	1	0	19	—	—	0	—	—
	LI3/PI3	12	34	25	1	0	22	—	4	0	34	24	3	0	30	—	—	0	—	—	4	0	31	17
	LISN/PISN	12	56	—	1	X	50	—	—	X	—	—	1	X	56	—	—	X	—	—	—	X	—	—
Draftsman	DMC	12	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	2	—	—	—	1	—	—
	DM1	12	—	—	—	2	—	—	—	3	—	—	—	0	—	—	—	9	—	—	—	7	—	—
	DM2	12	—	—	—	1	—	—	1	1	28	—	—	1	—	—	—	14	—	—	—	10	—	—
	DM3	12	23	—	—	0	—	—	—	1	—	—	1	2	16	—	—	8	—	—	—	1	—	—
	DMSN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Machinist's Mate	MMC	36	99	58	5	40	77	52	8	7	191	119	5	9	187	46	4	82	53	46	20	57	105	68
	MM1	48	191	119	25	29	186	101	19	4	130	116	12	19	137	104	17	67	94	80	33	76	191	123
	MM2	18	79	73	9	32	80	53	7	4	105	76	3	20	43	—	5	107	57	42	11	129	130	58
	MM3	24	79	70	9	13	69	51	3	5	87	—	2	0	67	—	6	0	67	54	11	29	99	56
	MMFN	24	57	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Engineman	ENC	36	71	57	1	11	50	—	4	6	165	57	6	10	74	54	2	27	55	—	8	36	153	56
	EN1	48	168	60	7	42	161	81	10	21	80	67	9	13	123	79	7	68	121	56	6	91	56	54
	EN2	30	78	57	3	53	50	—	2	27	61	—	7	17	96	77	3	74	78	—	14	63	62	54
	EN3	24	104	45	2	38	92	—	4	11	104	28	1	3	48	—	—	31	—	—	2	46	26	—
	ENFN	24	103	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Machinery Repairman	MRC	18	37	23	—	0	—	—	1	—	23	—	1	3	35	—	—	1	—	—	2	3	29	—
	MR1	18	122	—	1	5	26	—	3	2	121	—	—	2	—	—	1	10	122	—	—	10	—	—
	MR2	18	—	—	—	6	—	—	—	3	—	—	1	4	41	—	3	20	71	—	1	25	52	—
	MR3	18	—	—	—	3	—	—	—	0	—	—	—	1	—	—	—	2	—	—	2	3	98	—
	MRFN	18	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Boilerman	BTC	48	158	85	2	8	130	—	—	6	—	—	2	3	59	—	4	13	72	51	8	20	169	63
	BT1	48	173	118	28	10	140	118	21	3	116	107	24	7	129	106	34	25	117	107	28	24	110	107
	BT2	30	114	103	3	52	114	—	2	6	82	—	4	14	109	51	3	105	105	—	5	92	118	60
	BT3	36	91	73	4	25	63	54	4	2	80	40	2	2	92	—	6	13	156	55	9	8	59	56
	BTFN	36	101	58	2	X	93	—	—	X	—	—	3	X	101	—	—	X	—	—	2	X	58	—
Electrician's Mate	EMC	24	159	50	6	18	56	50	2	5	159	—	5	13	73	41	4	32	56	28	10	51	105	51
	EM1	24	93	81	9	18	81	64	15	7	128	95	7	9	91	73	8	40	70	53	18	58	101	98
	EM2	24	36	26	—	40	—	—	1	22	42	—	2	12	43	—	—	64	—	—	2	66	36	—
	EM3	24	—	—	0	7	0	0	—	2	—	—	1	1	30	—	—	26	—	—	—	24	—	—
	EMFN	24	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
I. C. Electrician	ICC	18	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	2	—	—	1	1	26	—
	IC1	18	146	23	2	8	85	—	1	1	68	—	1	4	134	—	—	29	—	—	—	20	—	—
	IC2	18	—	—	—	3	—	—	—	1	—	—	—	3	—	—	—	17	—	—	—	15	—	—
	IC3	18	24	24	2	13	21	—	—	0	—	—	2	1	49	—	—	3	—	—	1	2	22	—
	ICFN	18	58	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Metalsmith	MEC	24	62	52	—	0	—	—	2	1	53	—	2	2	56	—	5	5	93	49	1	8	51	—
	ME1	24	101	72	7	28	66	56	4	3	143	59	6	8	98	60	9	32	101	54	14	19	82	71
	ME2	30	75	74	9	6	90	74	1	0	67	—	5	5	76	43	8	7	80	58	11	12	86	71
	ME3	24	56	54	1	2	64	—	3	1	64	—	4	0	58	53	2	4	50	—	10	2	73	53
	MEFN	24	102	—	—	X	—	—	1	X	63	—	—	X	—	—	1	X	54	—	—	X	—	—
Pipe Fitter	FPC	24	58	31	3	0	73	—	—	1	—	—	—	3	—	—	6	3	67	51	3	2	74	—
	FP1	42	106	87	8	5	103	68	3	1	113	—	7	4	126	72	5	5	92	60	7	7	106	69
	FP2	24	100	58	—	2	—	—	—	0	—	—	4	3	100	44	1	21	28	—	13	13	65	61
	FP3	30	61	47	7	0	53	43	2	0	48	—	5	0	49	23	3	2	110	—	7	0	61	38
	FPFN	30	29	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Damage Controlman	DCC	24	37	—	—	0	—	—	—	2	—	—	—	2	—	—	2	6	192	—	2	14	41	—
	DC1	36	90	67	6	2	74	61	4	2	64	54	7	2	75	52	5	5	59	51	8	25	66	48
	DC2	36	63	54	5	11	56	47	5	4	78	51	5	2	89	68	2	11	57	—	8	46	56	51
	DC3	18	24	—	—	1	—	—	1	0	61	—	5	3	86	40	2	4	53	—	1	29	24	—
	DCFN	18	—	—	1	X	43	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
—	0	—	—	—	0	—	—	1	0	69	—	—	0	—	—	1	0	99	—	1	0	53	—	—	0	—	—	SH1(C)
—	0	—	—	1	0	48	—	1	0	105	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SH2(C)
2	0	56	—	1	0	95	—	2	0	71	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SH3(C)
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SHSN(C)
3	18	74	—	3	13	87	—	4	64	152	52	4	38	62	49	3	9	74	—	1	7	73	—	—	9	—	—	SH1(S)
—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SH2(S)
1	0	56	—	—	0	—	—	2	0	27	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SH3(S)
—	X	—	—	—	X	—	—	—	X	—	—	1	X	43	—	—	X	—	—	—	X	—	—	—	X	—	—	SHSN(S)
5	0	73	22	1	0	24	—	1	0	24	—	3	0	40	—	—	0	—	—	—	0	—	—	—	0	—	—	SHC
—	2	—	—	—	4	—	—	—	4	—	—	1	2	23	—	—	1	—	—	—	0	—	—	—	0	—	—	JOC
—	4	—	—	1	7	67	—	—	6	—	—	—	4	—	—	—	1	—	—	1	1	26	—	—	1	—	—	JO1
—	3	—	—	—	8	—	—	—	5	—	—	—	2	—	—	—	1	—	—	0	1	—	—	—	2	—	—	JO2
—	4	—	—	—	9	—	—	—	6	—	—	—	2	—	—	—	2	—	—	6	2	20	18	—	1	—	—	JO3
—	X	—	—	1	X	19	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	32	—	—	X	—	—	JOSN
1	0	22	—	—	0	—	—	1	0	25	—	2	3	33	—	—	0	—	—	2	3	41	—	—	0	—	—	LIC/PIC
—	0	—	—	—	0	—	—	2	4	35	—	—	3	—	—	1	0	34	—	—	2	—	—	—	0	—	—	LI1/PI1
—	0	—	—	—	1	—	—	—	1	—	—	—	4	—	—	—	0	—	—	—	3	—	—	—	0	—	—	LI2/PI2
1	0	17	—	8	0	24	22	6	0	79	21	1	5	17	—	1	0	23	—	6	3	25	23	—	0	—	—	LI3/PI3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	LISN/PISN
—	0	—	—	—	0	—	—	—	6	—	—	—	4	—	—	—	1	—	—	—	1	0	0	—	0	—	—	DMC
—	2	—	—	—	1	—	—	—	7	—	—	—	3	—	—	—	0	—	—	—	8	0	0	—	0	—	—	DM1
—	3	—	—	—	5	—	—	—	5	—	—	—	2	—	—	—	0	—	—	—	9	—	—	—	0	—	—	DM2
—	5	—	—	1	6	14	—	2	5	32	—	1	0	23	—	—	0	—	—	1	12	21	—	—	0	—	—	DM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	DMSN
5	32	82	67	4	27	57	43	20	74	99	74	7	41	70	56	13	16	72	65	2	20	106	—	1	3	68	—	MMC
23	33	121	99	30	37	106	100	34	91	123	94	8	41	97	72	11	10	107	92	6	9	74	66	4	1	113	95	MM1
12	66	105	55	12	45	70	46	16	153	92	56	5	65	57	39	2	12	73	—	7	23	56	38	—	1	—	—	MM2
8	3	79	45	11	0	126	45	20	13	71	62	1	4	19	—	6	6	50	28	4	4	73	28	—	0	—	—	MM3
—	X	—	—	2	X	57	—	1	X	29	—	2	X	25	—	—	X	—	—	—	X	—	—	—	X	—	—	MMFN
6	9	159	59	4	9	74	51	19	24	71	61	3	15	69	—	2	9	79	—	2	14	64	—	—	7	—	—	ENC
5	26	124	56	12	19	99	66	12	77	78	55	7	40	109	58	7	28	168	63	1	23	54	—	1	22	60	—	EN1
11	20	67	57	8	14	70	49	12	82	75	52	2	61	140	—	4	46	77	48	2	26	81	—	2	9	43	—	EN2
7	4	87	53	7	1	82	57	4	38	100	49	3	12	47	—	7	19	50	45	1	21	29	—	—	16	—	—	EN3
—	X	—	—	—	X	—	—	2	X	103	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ENFN
1	1	35	—	2	4	37	—	3	5	32	—	—	2	—	—	1	0	82	—	1	5	31	—	—	0	—	—	MRC
—	5	—	—	—	7	—	—	—	15	—	—	—	7	—	—	—	0	—	—	—	1	—	—	1	1	24	—	MR1
—	14	—	—	—	25	—	—	—	15	—	—	—	15	—	—	—	5	—	—	—	9	—	—	—	0	—	—	MR2
—	1	—	—	—	2	—	—	—	6	—	—	—	4	—	—	—	0	—	—	—	1	—	—	—	0	—	—	MR3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	MRFN
4	6	106	51	8	11	158	76	12	32	108	59	3	10	205	—	4	6	119	51	1	6	54	—	—	1	—	—	BTC
19	43	106	104	28	22	106	105	39	35	173	114	15	14	158	103	9	4	123	89	13	18	106	103	6	0	102	69	BT1
2	39	83	—	3	44	80	—	13	97	104	67	3	52	103	—	2	11	58	—	3	23	71	—	—	0	—	—	BT2
11	7	99	66	4	0	76	55	7	2	75	52	8	0	99	71	3	10	72	—	4	6	91	39	—	0	—	—	BT3
—	X	—	—	1	X	74	—	1	X	57	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	BTFN
7	32	162	49	3	21	45	—	18	45	55	52	5	27	52	43	1	12	42	—	3	18	51	—	—	3	—	—	EMC
9	16	87	53	10	22	103	58	12	41	81	63	3	27	87	—	6	12	103	56	3	12	98	—	2	7	56	—	EM1
2	18	37	—	3	16	53	—	1	73	42	—	2	30	57	—	3	24	31	—	—	20	—	—	—	9	—	—	EM2
1	3	49	—	1	1	39	—	—	15	—	—	2	11	56	—	—	7	—	—	—	14	—	—	—	3	—	—	EM3
—	X	—	—	1	X	43	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	EMFN
—	0	—	—	—	2	—	—	1	3	38	—	—	4	—	—	2	0	36	—	1	0	53	—	—	0	—	—	ICC
—	13	—	—	1	13	53	—	3	21	35	—	2	12	114	—	1	5	146	—	—	5	—	—	—	1	—	—	IC1
1	8	26	—	—	12	—	—	—	15	—	—	—	10	—	—	—	5	—	—	—	9	—	—	—	1	—	—	IC2
2	5	23	—	5	1	24	21	4	2	24	22	—	2	—	—	1	2	22	—	—	0	—	—	—	0	—	—	IC3
1	X	58	—	1	X	22	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ICFN
2	7	67	—	1	5	47	—	13	15	90	52	1	6	62	—	1	2	45	—	—	3	—	—	—	1	—	—	MEC
7	8	137	59	4	12	72	54	16	29	99	73	3	13	69	—	5	5	61	48	—	4	—	—	—	1	—	—	ME1
8	3	93	56	8	9	96	72	5	20	74	52	4	7	66	51	3	2	92	—	—	1	—	—	—	0	—	—	ME2
5	3	56	40	3	1	52	—	—	11	—	—	5	0	52	25	1	0	66	—	1	2	93	—	—	0	—	—	ME3
1	X	52	—	—	X	—	—	1	X	102	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	MEFN
—	2	—	—	2	3	57	—	4	1	96	29	1	2	43	—	—	0	—	—	—	4	—	—	—	0	—	—	FPC
2	18	75	—	5	12	60	52	10	10	104	93	5	5	109	80	2	1	61	—	5	5	102	74	3	2	90	—	FP1
4	8	58	34	1	16	62	—	2	19	45	—	3	9	67	—	—	1	—	—	2	9	59	—	—	3	—	—	FP2
1	0	56	—	4	1	40	35	5	3	47	33	3	0	43	—	1	0	47	—	—	0	—	—	—	1	—	—	FP3
—	X	—	—	1	X	23	—	1	X	29	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	FPFN
—	3	—	—	1	8	37	—	—	8	—	—	3	9	51	—	4	0	91	46	—	7	—	—	—	4	—	—	DCC
7	9	56	56	5	6	90	53	9	7	68	59	4	8	81	36	3	6	72	—	7	6	63	61	3	8	51	—	DC1
6	12	53	42	5	13	111	60	4	15	56	44	1	5	51	—	4	9	58	41	—	11	—	—	1	10	43	—	DC2
3	9	35	—	4	3	36	21	—	18	—	—	—	9	—	—	1	1	24	—	—	14	—	—	—	8	—	—	DC3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	100	—	—	X	—	—	—	X	—	—	DCFN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	ANYWHERE U. S. MOS. SEA DUTY		1ST ND				3RD ND				4TH ND				5TH ND				6TH ND			
							MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY	
			1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Patternmaker	PMC	18	—	—	1	0	110	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	PM1	18	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	PM2	18	—	—	1	0	67	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—
	PM3	18	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	PMFN	18	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Molder	MLC	18	—	—	2	0	175	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—
	ML1	18	—	—	1	0	32	—	—	0	—	—	—	0	—	—	—	0	—	—	2	0	64	—
	ML2	18	—	—	—	1	—	—	2	0	57	—	1	0	56	—	—	0	—	—	1	0	53	—
	ML3	18	—	—	—	0	—	—	—	0	—	—	—	0	—	—	1	0	99	—	1	0	36	—
	MLFN	18	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Surveyar	SVC	12	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	2	—	—	—	0	—	—
	SV1	12	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	3	—	—	1	2	91	—
	SV2	12	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	3	—	—	—	1	—	—
	SV3	12	—	—	1	1	18	—	—	0	—	—	—	0	—	—	—	0	—	—	—	4	—	—
	SVCN	12	—	—	—	X	—	—	—	X	—	—	1	X	40	—	—	X	—	—	—	X	—	—
Construction Electrician's Mate	CEC	12	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	8	—	—	—	5	—	—
	CE1	12	—	—	1	1	20	—	—	0	—	—	—	0	—	—	—	11	—	—	3	19	31	—
	CE2	12	—	—	1	2	33	—	—	1	—	—	—	0	—	—	—	11	—	—	—	6	—	—
	CE3	12	22	—	4	1	55	37	—	0	—	—	2	0	17	—	1	1	29	—	2	6	27	—
	CECN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	17	—	—	X	—	—
Driver	CDC	18	—	—	1	2	79	—	2	—	69	—	—	1	—	—	—	14	—	—	1	10	44	—
	CD1	18	39	30	3	3	49	—	5	0	121	50	—	1	—	—	—	11	—	—	3	19	31	—
	CD2	18	81	48	—	4	—	—	—	0	—	—	1	1	33	—	2	7	74	—	5	34	69	29
	CD3	12	34	28	4	7	44	25	—	0	—	—	4	2	48	16	2	6	27	—	9	44	43	28
	CDCN	12	46	31	2	X	46	—	—	X	—	—	—	X	—	—	1	X	23	—	—	X	—	—
Mechanic	CMC	18	—	—	1	1	30	0	—	0	—	—	—	0	—	—	1	9	75	—	1	1	109	—
	CM1	18	21	—	1	1	43	0	2	0	71	—	—	0	—	—	—	11	21	—	2	5	36	—
	CM2	12	—	—	3	2	52	—	—	0	—	—	1	0	119	—	1	9	12	—	1	5	42	—
	CM3	12	34	17	2	4	32	—	—	0	—	—	1	0	30	—	—	10	—	—	5	5	34	19
	CMCN	12	20	—	1	X	33	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Builder	BUC	24	48	45	1	3	37	—	—	0	—	—	—	0	—	—	5	11	47	40	5	8	67	37
	BU1	18	—	—	1	1	126	—	—	0	—	—	—	2	—	—	—	21	—	—	1	7	31	—
	BU2	18	32	—	0	3	0	—	1	0	68	—	—	0	—	—	1	32	32	—	—	12	—	—
	BU3	12	32	25	4	4	40	18	3	0	52	—	—	0	—	—	2	10	32	—	—	7	—	—
	BUCN	12	49	15	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	19	—
Steel Worker	SWC	24	119	57	1	1	43	—	—	0	—	—	—	0	—	—	3	—	43	—	5	1	122	57
	SW1	18	43	—	5	1	53	27	—	0	—	—	—	0	—	—	—	1	—	—	3	3	50	—
	SW2	18	34	28	1	2	28	—	—	0	—	—	1	0	31	—	1	3	30	—	3	6	34	—
	SW3	12	24	24	1	1	33	—	1	0	22	—	4	0	24	15	0	4	28	—	3	2	46	—
	SWCN	12	26	18	—	X	—	—	—	X	—	—	—	X	—	—	1	X	18	—	2	X	26	—
	CN/CP	12	56	30	2	0	35	—	—	0	—	—	—	0	—	—	—	0	—	—	2	0	23	—
Utilities Man	UTC	12	—	—	1	1	28	—	—	0	—	—	1	0	1	—	—	8	—	—	1	4	20	—
	UT1	12	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	4	—	—	—	8	—	—
	UT2	12	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	5	—	—	—	8	—	—
	UT3	12	19	—	1	1	30	—	—	0	—	—	1	0	14	—	3	3	25	—	4	9	37	20
	UTCN	12	—	—	1	X	23	—	—	X	—	—	—	X	—	—	1	X	16	—	—	X	—	—
Steward	SDC	18	—	—	—	10	—	—	3	4	78	—	—	8	—	—	—	16	—	—	—	43	—	—
	SD1	36	63	—	9	19	83	66	16	5	139	81	11	13	98	33	10	20	114	51	2	68	107	—
	SD2	30	—	—	6	21	124	55	14	6	99	73	10	13	129	86	5	31	85	40	10	87	57	51
	SD3	30	—	—	12	24	152	104	11	3	93	69	10	15	71	70	1	29	41	—	—	129	—	—
	TN	12	—	—	8	106	68	42	6	24	68	47	5	35	33	25	3	91	91	—	—	521	—	—
Aviation Machinist's Mate	ADC	18	—	—	15	19	77	60	3	3	69	—	11	24	117	56	6	26	85	54	1	260	29	—
	AD1	18	—	—	2	42	48	—	1	6	51	—	9	41	68	58	3	36	38	—	19	415	49	31
	AD2	18	—	—	1	60	22	—	—	5	—	—	2	59	28	—	—	34	—	—	12	523	76	45
	AD3	12	—	—	—	69	—	—	1	4	34	—	1	84	19	—	—	44	—	—	12	731	59	31
	ADAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	24	—
Aviation Electronics Technician	ALC/ATC	18	—	—	3	11	93	—	2	3	51	—	5	7	126	56	—	76	—	—	2	53	27	—
	AL1/AT1	18	—	—	5	18	106	47	3	3	126	—	3	23	82	—	1	15	51	—	3	104	87	—
Aviation Electronicsman	AL2/AT2	12	—	—	2	26	37	—	3	2	57	—	5	23	110	22	1	24	37	—	6	172	51	21
	AL3/AT3	12	—	—	4	31	34	16	2	4	37	—	3	29	56	—	2	37	27	—	1	229	16	—
	ALAN/ATAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Aviation Ordnanceman	AOC	24	91	29	1	4	55	—	—	0	—	—	3	6	62	—	—	8	—	—	6	28	33	31
	AO1	24	—	—	10	7	108	67	1	0	73	—	5	4	127	54	—	14	—	—	8	44	56	53
	AO2	24	—	—	—	11	—	—	1	0	73	—	6	6	72	61	—	16	—	—	—	67	—	—
	AO3	18	46	22	2	17	21	—	4	0	42	21	7	9	68	36	3	22	70	—	8	77	24	22
	AOAN	18	—	—	—	X	—	—	—	X	—	—	1	X	41	—	—	X	—	—	1	X	23	—
Aviation Boatswain's Mate	ABC	18	54	—	—	2	—	—	—	0	—	—	—	15	—	—	1	7	28	—	2	20	41	—
	AB1	24	72	46	4	2	84	47	2	0	72	—	8	24	85	51	2	11	50	—	6	38	95	28
	AB2	18	32	—	1	3	41	—	—	1	—	—	—	43	—	—	2	14	37	—	1	46	23	—
	AB3	12	23	22	4	4	38	17	9	0	36	24	14	54	39	18	1	21	17	—	4	66	21	18
	ABAN	12	—	—	1	X	78	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
—	0	—	—	—	0	—	—	—	3	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	PMC
—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	1	—	—	—	0	—	—	PM1
—	1	—	—	—	0	—	—	—	3	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	PM2
—	3	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	PM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	PMFN
—	0	—	—	—	7	—	—	1	2	25	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	MLC
—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	ML1
—	0	—	—	—	0	—	—	—	2	—	—	—	3	—	—	—	0	—	—	—	0	—	—	—	0	—	—	ML2
1	0	40	—	—	0	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	ML3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	MLFN
—	0	—	—	—	1	—	—	—	4	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SVC
—	1	—	—	—	1	—	—	—	4	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV1
—	2	—	—	—	0	—	—	—	2	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV2
—	1	—	—	—	1	—	—	—	7	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SV3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SVCN
—	5	—	—	—	8	—	—	—	8	—	—	—	2	—	—	—	0	—	—	—	1	—	—	—	0	—	—	CEC
—	3	—	—	—	6	—	—	1	10	36	—	—	1	—	—	—	0	—	—	1	0	45	—	—	0	—	—	CE1
—	3	—	—	—	2	—	—	—	12	—	—	—	1	—	—	—	1	—	—	—	0	—	—	—	0	—	—	CE2
1	4	15	—	3	3	18	—	4	23	50	16	—	2	—	—	—	0	—	—	—	0	—	—	1	0	15	—	CE3
—	X	—	—	1	X	23	—	—	X	—	—	1	X	16	—	—	X	—	—	—	X	—	—	—	X	—	—	CECN
—	9	—	—	—	2	—	—	1	17	38	—	—	4	—	—	—	1	—	—	—	1	—	—	—	0	—	—	CDC
4	13	41	31	2	2	48	—	2	23	56	—	—	3	—	—	1	1	30	—	1	2	24	—	—	0	—	—	CD1
1	18	72	—	4	7	81	29	2	27	28	—	2	4	66	—	1	0	39	—	—	3	—	—	—	0	—	—	CD2
3	23	23	—	7	11	23	21	10	45	40	27	—	6	—	—	4	2	26	14	2	11	31	—	—	0	—	—	CD3
6	X	37	24	2	X	38	—	4	X	46	17	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	CDCN
1	5	151	—	—	6	—	—	—	8	—	—	1	2	26	—	—	0	—	—	—	0	—	—	—	0	—	—	CMC
—	5	—	—	—	1	—	—	—	15	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	1	—	—	CM1
—	10	—	—	1	3	33	—	—	23	—	—	—	3	—	—	1	0	35	—	—	0	—	—	—	1	—	—	CM2
—	11	—	—	4	0	68	15	2	28	17	—	—	3	—	—	1	0	17	—	—	0	—	—	—	1	—	—	CM3
1	X	28	—	1	X	34	—	1	X	20	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	CMCN
2	7	37	—	1	5	34	—	4	12	48	29	1	3	35	—	1	1	45	—	—	0	—	—	—	0	—	—	BUC
1	7	31	—	—	8	—	—	1	17	27	—	—	9	—	—	—	2	—	—	—	0	—	—	—	0	—	—	BU1
0	9	—	—	—	13	—	—	—	27	—	—	—	9	—	—	—	0	—	—	1	0	32	—	—	0	—	—	BU2
0	7	—	—	3	5	28	—	2	45	18	—	—	2	—	—	1	1	40	—	—	0	—	—	—	0	—	—	BU3
1	X	28	—	—	X	—	—	1	X	49	—	1	X	27	—	—	X	—	—	—	X	—	—	—	X	—	—	BUCN
—	0	—	—	2	1	33	—	4	3	119	41	1	1	61	—	—	0	—	—	—	0	—	—	—	0	—	—	SWC
—	1	—	—	—	14	—	—	3	8	40	—	—	1	—	—	—	1	—	—	1	0	43	—	—	0	—	—	SW1
—	3	—	—	3	2	65	—	—	15	—	—	—	2	—	—	—	0	—	—	—	0	—	—	—	0	—	—	SW2
—	3	—	—	1	0	24	—	6	25	24	18	1	0	22	—	—	0	—	—	1	0	17	—	—	0	—	—	SW3
2	X	22	—	2	X	26	—	1	X	26	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	SWCN
2	0	28	—	—	0	—	—	2	0	56	—	2	0	44	—	—	0	—	—	—	0	—	—	—	0	—	—	CN/CP
—	0	—	—	1	1	31	—	2	9	42	—	—	5	—	—	1	2	26	—	—	0	—	—	—	0	—	—	UTC
—	3	—	—	2	4	33	—	2	8	28	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	UT1
—	3	—	—	—	4	—	—	—	9	—	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	UT2
3	4	30	—	2	5	25	—	2	16	19	—	—	1	—	—	—	0	—	—	—	0	—	—	—	0	—	—	UT3
—	X	—	—	—	X	—	—	1	X	21	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	UTCN
—	13	—	—	—	7	—	—	26	16	199	86	8	12	264	75	1	5	31	—	1	14	25	—	—	8	—	—	SDC
5	25	142	37	5	17	53	41	51	30	107	80	25	21	183	80	3	8	71	—	5	16	54	43	4	11	62	46	SD1
1	37	42	—	7	22	61	53	14	44	199	71	11	23	73	66	3	8	126	—	11	17	151	54	3	7	71	—	SD2
—	48	—	—	—	29	—	—	4	51	130	32	—	25	—	—	—	10	—	—	4	20	74	47	—	5	—	—	SD3
—	147	—	—	2	95	28	—	4	146	142	11	3	94	31	—	—	30	—	—	10	60	56	34	—	345	—	—	TN
3	156	58	—	—	77	—	—	7	48	57	43	2	29	28	—	11	2	96	91	—	84	—	—	1	3	32	—	ADC
4	268	70	26	7	143	41	28	8	89	112	49	6	49	96	27	9	5	149	60	—	144	—	—	—	6	—	—	AD1
4	388	60	24	6	191	85	24	2	123	36	—	4	63	32	22	3	8	50	—	—	185	—	—	1	10	22	—	AD2
—	515	—	—	—	238	—	—	—	180	—	—	3	79	49	—	5	6	49	23	—	260	—	—	—	13	—	—	AD3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ADAN
1	36	32	—	—	22	—	—	—	44	—	—	7	6	117	72	7	1	99	33	—	39	—	—	—	1	—	—	ALC/ATC
3	73	68	—	4	47	66	23	—	55	—	—	7	13	146	66	3	2	87	—	5	45	58	40	1	2	86	—	AL1/AT1
—	109	—	—	1	47	26	—	—	75	—	—	1	17	17	—	2	3	29	—	—	57	—	—	1	4	24	—	AL2/AT2
—	142	—	—	2	69	43	—	—	94	—	—	1	24	24	—	—	3	—	—	—	68	—	—	—	5	—	—	AL3/AT3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ALAN/ATAN
—	19	—	—	2	1	94	—	6	16	178	30	6	6	153	83	9	—	181	92	—	16	—	—	—	0	—	—	AOC
2	34	45	—	2	5	80	—	3	35	190	—	7	9	75	68	7	2	79	62	—	24	—	—	—	0	—	—	AO1
—	47	—	—	2	8	80	—	1	41	52	—	3	13	50	—	4	3	104	43	—	23	—	—	—	0	—	—	AO2
12	77	65	27	5	4	56	50	5	51	30	22	3	22	22	—	1	4	56	—	—	26	—	—	—	0	—	—	AO3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	AOAN
—	10	—	—	—	4	—	—	2	9	48	—	3	6	54	—	—	0	—	—	3	11	61	—	—	1	—	—	ABC
1	21	28	—	1	6	30	—	—	15	—	—	1	11	70	—	—	1	—	—	2	27	32	—	1	0	48	—	AB1
3	32	32	—	3	5	57	—	1	16	18	—	—	19	—	—	—	0	—	—	—	26	—	—	1	1	39	—	AB2
12	41	23	20	2	13	21	—	7	28	23	22	5	20	22	18	2	0	21	—	2	31	19	—	—	1	—	—	AB3
—	X	—	—	—	X	—	—	1	X	15	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	ABAN

BuPers Shore Duty Eligibility List (cont.)

	RATE	CONTINUOUS SEA DUTY NEEDED TO APPLY SDEL	ANYWHERE U. S. MOS. SEA OUTY		1ST ND				3RO NO				4TH NO				5TH ND				6TH NO			
							MOS. SEA OUTY				MOS. SEA OUTY				MOS. SEA OUTY				MOS. SEA OUTY				MOS. SEA OUTY	
			1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN
Aviation Electrician's Mate	AEC	18	—	—	1	3	29	—	1	0	62	—	2	4	44	—	—	5	—	—	1	39	22	—
	AE1	18	11	—	6	8	88	46	—	0	—	—	3	7	49	—	—	7	—	—	3	93	28	—
	AE2	12	23	—	2	10	79	—	—	2	—	—	2	11	62	—	—	11	—	—	4	145	73	22
	AE3	12	—	—	—	14	—	—	1	1	24	—	2	12	24	—	1	10	23	—	5	194	31	18
	AEAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Aviation Structural Mechanic	AMC	18	—	—	5	4	67	40	—	1	—	—	4	10	110	68	1	5	201	—	9	96	108	60
	AM1	18	—	—	3	11	47	—	—	2	—	—	9	15	81	56	—	14	—	—	—	219	—	—
	AM2	12	—	—	1	13	66	—	—	1	—	—	—	22	—	—	—	13	—	—	—	310	—	—
	AM3	12	—	—	5	20	31	22	1	1	34	—	1	32	21	—	—	21	—	—	—	385	—	—
	AMAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Parachute Rigger	PRC	12	—	—	1	3	23	—	—	0	—	—	—	6	—	—	—	4	—	—	—	20	—	—
	PR1	18	—	—	—	2	—	—	—	0	—	—	—	4	—	—	—	3	—	—	2	29	44	—
	PR2	12	38	—	—	2	—	—	—	0	—	—	1	3	20	—	—	2	—	—	2	41	23	—
	PR3	12	—	—	—	4	—	—	—	0	—	—	—	10	—	—	—	5	—	—	—	61	—	—
	PRAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Aviation Storekeeper	AKC	18	—	—	—	5	—	—	—	0	—	—	—	9	—	—	1	9	121	—	2	27	50	—
	AK1	18	33	—	—	10	—	—	1	0	53	—	3	17	65	—	1	14	21	—	4	50	43	27
	AK2	12	—	—	2	15	22	—	—	0	—	—	—	22	—	—	—	24	—	—	—	70	—	—
	AK3	12	—	—	—	16	—	—	1	0	25	—	—	32	—	—	—	28	—	—	—	100	—	—
	AKAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Photographer's Mate	PHC	18	—	—	1	3	70	—	—	2	—	—	—	6	—	—	—	7	—	—	—	12	—	—
	PH1	18	—	—	—	3	—	—	1	3	89	—	—	12	—	—	—	16	—	—	—	26	—	—
	PH2	12	—	—	1	5	91	—	1	3	50	—	—	8	—	—	—	16	—	—	—	40	—	—
	PH3	12	—	—	—	4	—	—	—	4	—	—	1	10	23	—	—	22	—	—	—	45	—	—
	PHAN	12	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—
Airman	AN	12	54	—	7	397	19	18	4	17	17	17	7	368	19	18	—	424	—	—	—	3938	—	—
Hospital Corpsman	HMC	18	30	26	4	87	34	19	0	80	—	—	0	67	—	—	2	154	21	—	16	89	31	29
	HM1	18	37	22	5	85	50	28	2	71	28	—	4	81	36	19	0	187	—	—	15	173	59	25
	HM2		NO WAITING																					
	HM3		NO WAITING																					
	HN		NO WAITING																					
	HA		NO WAITING																					
Dental Technician	ALL DT RATES		NO WAITING																					

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 42 — Advises that, with certain exceptions, applications for five-year term insurance will be accepted by Veterans Administration only through 31 Dec 1956.

No. 43 — Established revised values of commuted and leave rations.

No. 44 — Ordered revisions in certain paragraphs of the *Navy Comptroller's Manual.*

No. 45 — Announced the convening of a line selection board to consider USN and USNR officers on active duty for temporary promotion to the grade of lieutenant commander.

No. 46 — Announced approval by the President of the reports of two selection boards which recommended USN and USNR officers for temporary promotion to grade of commander and USN women officers for permanent promotion to grade of commander.

No. 47 — Announced the convening of a selection board to consider USN women Supply Corps officers for promotion to the grade of commander.

No. 48 — Called attention to the duty and privilege of every citizen to exercise his rights to a free vote and urged all Navymen to take advantage of absentee ballots.

—Instructions—

No. 1222.1A — Concerned with the identification of strikers.

No. 1301.26 — Reaffirms policy regarding the use of medical officers throughout the Fleet and shore establishment.

No. 1306.53A — Provides information concerning the selection and assignment of enlisted personnel, qualified in submarines, in certain ratings and pay grades to the Nuclear Powered Submarine Training Program.

No. 1320.4B — Provides information concerning the assembly and training of officers and enlisted personnel for new construction or conversion of vessels other than submarines.

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH IS ON PAGE 13

1. **(b) Stop.**
2. **(c) Cross over a railroad track.**
3. **(a) Traffic regulation and information.**
4. **(c) Railroad crossing.**
5. **(b) Caution, slow down.**
6. **(b) Yield right of way.**

8TH ND				9TH ND				11TH ND				12TH ND				13TH ND				PRNC				SRNC				RATE
		MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				MOS. SEA DUTY				
NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	NO. MEN ON LIST	NO. OF BILLETS	1ST MAN	4TH MAN	
1	26	35	—	—	12	—	—	2	12	68	—	4	5	63	42	—	0	—	—	—	14	—	—	—	1	—	—	AEC
1	59	27	—	2	20	33	—	—	24	—	—	4	6	50	28	3	1	67	—	—	23	—	—	—	1	—	—	AE1
2	91	31	—	2	34	25	—	1	37	21	—	2	12	48	—	—	0	—	—	1	37	22	—	—	1	—	—	AE2
—	123	—	—	—	47	—	—	1	33	21	—	1	17	23	—	2	1	29	—	—	34	—	—	—	1	—	—	AE3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	37	—	—	X	—	—	—	X	—	—	AEAN
2	75	63	—	—	22	—	—	5	22	50	46	6	9	51	32	2	1	94	—	—	19	—	—	—	2	—	—	AMC
—	173	—	—	—	45	—	—	3	47	32	—	7	19	49	40	5	1	89	49	—	37	—	—	—	4	—	—	AM1
—	215	—	—	—	76	—	—	1	61	25	—	1	29	27	—	2	1	53	—	—	51	—	—	—	5	—	—	AM2
—	303	—	—	1	96	49	—	—	85	—	—	—	36	—	—	4	1	94	26	—	68	—	—	—	7	—	—	AM3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	AMAN
—	11	—	—	—	3	—	—	—	8	—	—	—	4	—	—	—	1	—	—	—	4	—	—	—	1	—	—	PRC
—	23	—	—	—	8	—	—	—	10	—	—	—	1	—	—	—	0	—	—	1	9	78	—	—	0	—	—	PR1
1	36	22	—	—	11	—	—	1	16	22	—	1	2	73	—	1	0	38	—	2	10	21	—	—	1	—	—	PR2
—	49	—	—	—	14	—	—	—	20	—	—	—	7	—	—	—	1	—	—	1	15	22	—	—	2	—	—	PR3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	1	X	67	—	—	X	—	—	—	X	—	—	PRAN
1	12	27	—	—	3	—	—	1	14	22	—	—	7	—	—	1	1	54	—	—	14	—	—	—	1	—	—	AKC
2	25	43	—	3	5	57	—	6	24	51	23	1	16	32	—	—	1	—	—	—	17	—	—	—	1	—	—	AK1
—	39	—	—	—	6	—	—	—	36	—	—	—	23	—	—	—	2	—	—	—	21	—	—	—	2	—	—	AK2
—	53	—	—	1	12	23	—	—	47	—	—	—	31	—	—	—	3	—	—	—	25	—	—	—	2	—	—	AK3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	AKAN
—	5	—	—	—	2	—	—	2	8	42	—	—	3	—	—	1	1	27	—	—	0	—	—	1	2	78	—	PHC
—	9	—	—	—	4	—	—	—	20	—	—	—	8	—	—	—	3	—	—	1	0	21	—	—	1	—	—	PH1
—	13	—	—	—	4	—	—	—	30	—	—	—	7	—	—	1	2	34	—	—	0	—	—	—	1	—	—	PH2
—	13	—	—	2	6	19	—	—	43	—	—	1	12	58	—	—	0	—	—	—	0	—	—	—	2	—	—	PH3
—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	—	X	—	—	PHAN
—	2261	—	—	1	671	54	—	2	1231	27	—	2	612	21	—	3	51	19	—	—	0	—	—	—	167	—	—	AN
1	34	26	—	4	128	27	18	22	174	32	31	20	114	34	32	12	42	37	33	0	126	—	—	0	12	—	—	HMC
6	41	31	22	13	72	30	25	16	240	29	28	10	115	29	23	14	40	63	35	5	145	27	22	0	15	—	—	HM1
← NO WAITING →																												HM2
← NO WAITING →																												HM3
← NO WAITING →																												HN
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← NO WAITING →																												ALL DT RATES

No. 1440.14A — Ends the procedures by which personnel were brought into the GS, GF and AQ ratings and establishes the procedures under which further designations to these ratings will be made.

No. 1510.69A — Outlines a program of advanced technical education for enlisted personnel.

No. 1520.31A — Provides revised procedures for procurement of educational instruction, other services and material for officers in Five-Term College Training Program.

No. 1540.2B — Contains information regarding the assignment of enlisted personnel to initial submarine training and duty and the return of personnel qualified in submarines to the submarine service.

No. 1741.8 — Describes procedure for obtaining and recording Social Security Account Number Cards for active duty personnel.

—Notices—

No. 1210 (29 August) — Invited applications from certain permanently commissioned USN line officers for transfer to the Supply Corps.

No. 1420 (29 August) — Announced the names of those Medical Corps and Dental Corps officers eligible for consideration for promotion to the grade of captain and commander in fiscal year 1957.

No Acknowledgment of Shore Duty Request Cards

Individual acknowledgment of shore duty request cards (NavPers 2416) has been discontinued effective as of 2 Oct 1956. Acknowledgment will be made only of those request cards which contain erroneous information or do not meet eligibility requirements. This step is being taken as an administrative measure to get a large backlog of request cards placed on the SDEL.

If you do not hear from the Bureau after submitting your request for shore duty you can assume that your request is OK and your name has been put on the Shore Duty Eligibility List.

No. 1223 (31 August) — Announced Change No. 1 to BuPers Inst. 1223.1 which is concerned with the selective emergency service rates.

No. 1920 (31 August) — Concerned with instructions for administration of Officer Interview Forms (NavPers 18443A).

No. 1440 (10 September) — Established procedures for effecting changes in rating for personnel on active duty in the Quartermaster, Aviation Electronics and Aviation Fire Control Technicians ratings.

No. 1120 (11 September) — Invited applications from permanently commissioned USN line officers not above the grade of lieutenant for designation as Special Duty (Law) officers.

No. 1020 (12 September) — Announced details of a Fleet trial of proposed lightweight blue raincoat for officers and chief petty officers.

No. 1401 (17 September) — Announced the selection of officers and enlisted personnel recommended for appointment to permanent grade of ENS, Medical Service Corps, USN.

BOOKS: WIDE CHOICE AVAILABLE IN MONTH'S SELECTION

No matter what your reading taste, you'll find satisfaction in one of the many volumes available at your ship or station libarary. Here's a brief description of just a few selected by your Bureau Library Services Branch this month.

There's plenty of salt in the selection. As you might guess, ***The Naked Warriors,*** by CDR Francis D. Fane and Dan Moore, is a history of that phase of World War II amphibious operations concerned with the work of the Underwater Demolition Teams. It covers the activities of the UDTs from their origin on through the many maneuvers, small and large, which aided the Allies in the South Pacific, the Atlantic and in the Korean campaign. While introductory chapters deal with the concept of UDT, the history of its training program and its purpose—to find dangerous inshore obstructions and assist the landing of troops against immediate opposition—these are followed by play-by-play descriptions of invasions and campaigns. The book tells of Saipan and the first major test of the newly organized UDT, of Guam and of the climax on Okinawa.

By Sea and By Stealth by Burke Wilkinson, is another dramatized occupational handbook for Navymen. The author has concentrated on the "sneak attacks" by individuals against the enemy in his home port. He tells of midget subs of World War II, of canoes gliding serenely over enemy harbor defense systems and of devices resembling human torpedoes. The stories are not confined to any one nation. The Italians, it seems, were the experts at this kind of individual warfare and, of them all, De La Penne is probably tops for cold courage. It was he who, in the wake of a British destroyer, slipped through the defenses at Alexandria and planted under HMS *Valiant* an explosive charge from his submersible torpedo boat. When captured, he kept a stony silence when he was questioned directly above the spot where the battleship was about to explode. The exploits of the Germans at Scapa Flow, the ventures of the Japanese with suicide boats, miniature subs and kamikaze planes are described, as well as the British placidly paddling their canoes among Nazi shipping on the French coast. The author knows how to write and knows his subject.

A true I-was-there epic is told by Joseph T. O'Callahan in ***I Was Chaplain on the Franklin.*** He describes in detail the day-to-day routine of life abroad a carrier during World War II but the major portion of the book is, of course, devoted to the battle in which *Franklin* achieved immortality. Chaplain O'Callahan however, is more concerned with the personal heroism of the men aboard, and tells his story well.

On the other hand, ***The Cruiser,*** by Warren Tute, is a novel primarily centered about the life and death of a British ship during the same period in which the ship, together with its crew, is considered as a single unit. The author takes you through the commissioning of HMS *Antigone,* the varied lives and backgrounds of the men who constitute its crew, and how the crew made the ship and how the ship affected the lives of the crew. The windup is, of course, a blood-and-thunder sea battle which *Antigone* loses valiantly.

Had enough of the sea? Want to forget it all? Try burying yourself in ***The Fireside Book of Baseball,*** a voluminous volume compiled by Charles Einstein. Whether or not you're a baseball fan, you'll find something to enjoy in this vast collection of short stories, straight news, biography and doggerel, ranging in subject matter from a boy's nostalgic memories to the background on baseball nicknames. However, each item has one feature in common—it has something or other to do with baseball. As with most anthologies, it's a handy book to pick up for a few minutes quick reading. It's obvious that Mr. Einstein not only knows his baseball personalities, but he also knows good writing when he sees it.

Another drastic change of pace may be found in the novel, ***The Sound of Waves,*** by Yukio Mishima. The major story line is deceptively simple—the competition of the eligible young men of the Japanese island of Uta-jima for the hand of the daughter of the local, and somewhat ruthless, merchant although she has already pledged herself to the lowly fisherman, Shinji. But in telling this story, Mishima succeeds in conveying the heart-warming flavor of the people of the island, a rocky, wooded and barren place but regarded by its inhabitants as the most beautiful in all Japan.

The author skillfully weaves about the story his description of the life and customs of the people, evoking all the pictorial and dramatic ramification of his setting. The men are fishermen, especially for octopus, and the women are skin divers for seaweed and abalone. The bottom of their particular portion of the Pacific Ocean is as familiar as their own gardens and the island's isolated simplicity much more welcome than the flashy manisfestations of civilization such as automobiles, trolley cars, movies and neon lights encountered in trips to the city.

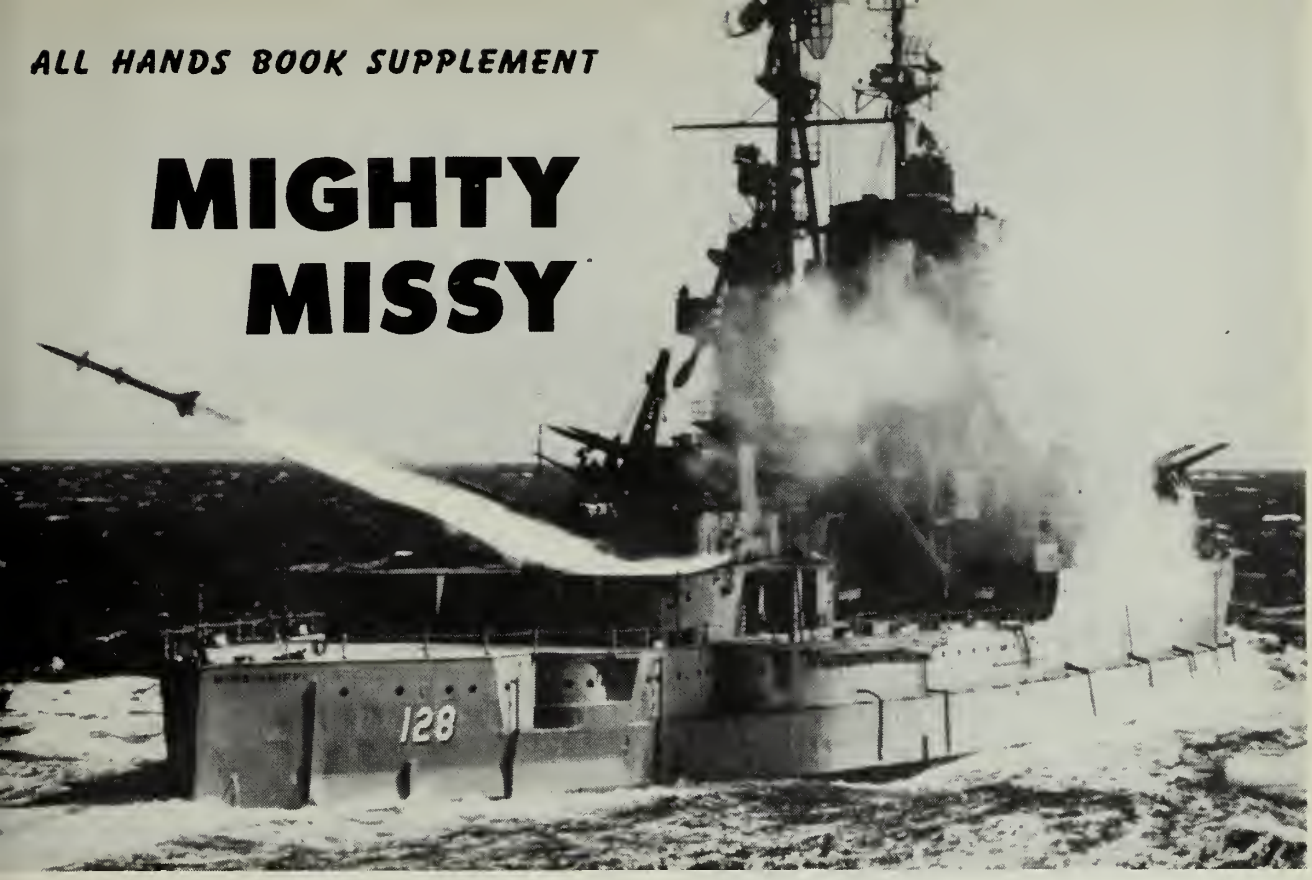
Mishima presents a story which depends solely upon skill of presentation and atmosphere for its effectiveness. Because of the two main characters, Shinji and Hatsue, you'll have a deeper respect and affection for all Japanese and all people.

SONGS OF THE SEA

Stormalong

He was a sailor bold and true,
To my aye, storm along!
A good skipper to his crew;
Aye, aye, aye, Mister Stormalong!
Of captains brave, he was the best,
To my aye, storm along!
But now he's gone and is at rest;
Aye, aye, aye, Mister Stormalong!
He lies low in an earthen bed,
To my aye, storm along!
Our hearts are sore, our eyes are red;
Aye, aye, aye, Mister Stormalong!

MIGHTY MISSY



At the time of her commissioning, *Mississippi* was one of the most formidable weapons devised by man. Today, in spite of her outstanding record, technological advances have been so rapid it has been found more advantageous to scrap her than to maintain her as even an experimental vessel.

On 31 July, USS *Mississippi* (AG 128) was towed across the Southern Branch of the Elizabeth River to be moored at Berth No. 1, Norfolk Naval Shipyard. Compared to *Mississippi's* earlier travels it wasn't much of a move, but to her it was significant. After a brief ceremony she was officially turned over to the custody of the Commandant, Fifth Naval District and placed "in commission, in reserve," a polite term in this instance for dismantling and the scrap heap.

Known as "Mighty Missy" in her happier days, *Mississippi* was ready to be retired. The sun was shining and it was a fine, warm day, but it shouldn't have been. A raw wind, overcast skies and a drizzle of rain would have been more appropriate. The tired ship no longer resembled the proud veteran of World War I, nor even the USS *Mississippi* (BB 41) of World War II. Her sides were like those of a hungry dog whose ribs showed through its dirty hide. Only one of her turrets was left and there were large gaping holes in her deck where much classified equipment had been removed. It was not a happy occasion.

However, scrapping of *Mississippi* emphasized once again how far and how rapidly the entire Navy has traveled in the past 40 years. At her commissioning in 1917, the 33,000-ton battleship comprised the mightiest single element of U. S. seapower at that time.

Into this ship, American technical knowledge was combined with the finest naval tactical skills that had yet been produced. All the trials went according to schedule and the shakedown showed that all the qualities which make a ship great were present in *Mississippi*.

She was big and tough. She made a top speed of 21 knots and carried an armament of twelve 14-inch guns, fourteen 5-inch broadside guns and an antiaircraft battery of four 3-inch guns.

BB 41 was the third USN vessel to bear the name Mississippi. *The first was a paddle wheel steamer of some 1692 tons equipped with 10 enormous pivot guns and was designed about 1840 by the then Captain (later Commodore) Matthew C. Perry,* USN. *She was, in her time, the most celebrated dreadnaught of her day. It was*

FIRST *MISSISSIPPI*, a paddle wheel steamer, is shown in painting with COMO Perry's famous expedition to Japan.

NIMBLE NAVYMEN climb the webbed steel cage of the battleship *Mississippi's* foremast to apply a coat of paint.

this vessel which formed the backbone of Commodore Perry's expedition to Japan. In 1862, the ship participated in operations against the forts below New Orleans, came through unscathed, only to be destroyed by fire in the battle of Port Hudson the following year.

The second vessel named Mississippi *was BB 23, of 13,000 tons displacement. Launched in 1905, she served with the Fleet for a few years and then was sold to Greece shortly before World War I. She was still in service more than 30 years later.*

IN 1919 at the end of her substantial, if not spectacular World War I career, *Mississippi,* along with a number of other major combatant ships, was transferred to the Pacific Fleet.

She was a proud and happy ship. Her personnel augmented that pride by winning the award for gunnery and engineering efficiency many times, and to prove that she excelled in play as well as in work, the vessel also won the "Iron Man," symbol of the Fleet Athletic Championship, for six consecutive years. Her reputation as a fighting ship, and her outstanding morale, made her an enviable duty assignment for both officers and men.

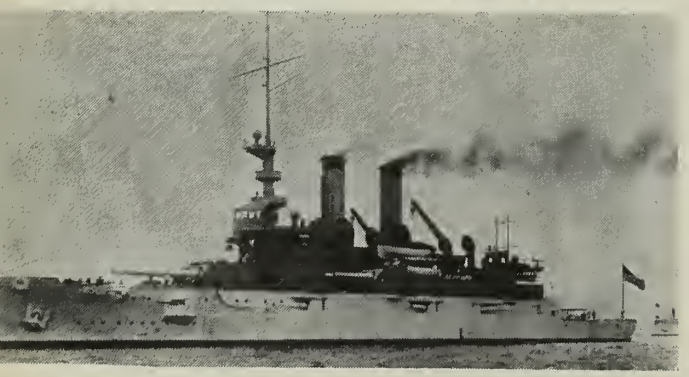
It wasn't all fun and games. On 12 Jun 1921 she was engaged in firing Advance Practice "B," together with *Tennessee* and *Idaho* off San Pedro, Calif. In the right gun of Number Two turret, there appeared to be some trouble with air pressure. The gun captain picked up a wrench to fix it. The shell was rammed home, four bags of power placed on the spanner tray and rammed into the gun, the rammer was withdrawn when, from the breech a small grayish ball of smoke and flame was followed by a large flash. Flame and gases immediately filled the gun compartment, passed through the safety doors above the shell table to the other two gun compartments and through the peep doors to the turret officer's booth. Forty-five enlisted men and three officers lay dead in the gas-filled turret as a result of asphyxiation. *Missy* continued to fire her other three turrets until the exercise was over, and then asked permission to drop out of the battle line to fight her fires. Within a short time she rejoined the formation and proceeded back to port in the usual manner.

In 1933 the ship was modernized, together with her sister ships, *Idaho* and *New Mexico,* her cage mast removed, her armament improved by the addition of a modern fire control system, all engineering installations replaced, and many alterations made in the hull design.

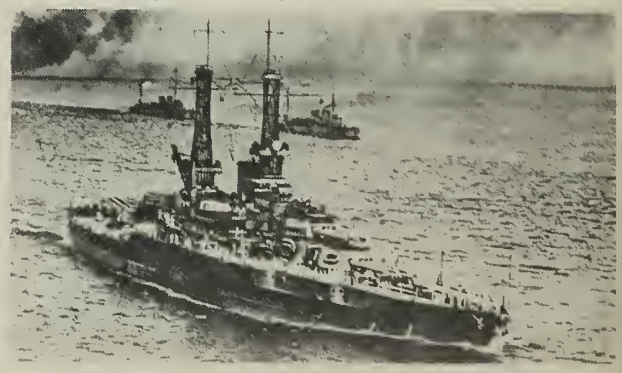
From June to December 1941 there were long periods of patrol in the icy, gale-torn North Atlantic. On one scouting mission during these pre-war operations, *Mississippi* went through one of the worst North Atlantic storms of recent times, losing some of her boats, topside equipment, and finally having her main catapult torn loose from the quarterdeck and washed over the sides.

WHEN THE SMOKE and flames of Pearl Harbor died away on 7 Dec 1941, *Mississippi* and her sister ships *Tennessee* and *Idaho,* which were lying quietly at anchor at Hvalfjord, Iceland, represented most of the remaining battleship strength of the United States Navy. *Mississippi* was promptly transferred to the Pacific Fleet to hold our remaining communication lanes in the Pacific.

SECOND *MISSISSIPPI* was Battleship No. 23. She was launched in 1905 and sold to Greece before World War I.



MISSISSIPPI of today, (BB 41), hit the water in 1917. Her guns helped in keeping control of seas in WWI.



Her assignment after arrival at San Francisco in January 1942 was to escort a convoy of much needed supplies to Pearl Harbor and to return immediately to the West Coast which, at that time, was considered to be in danger of enemy attack. Then, from January to July of the first year of our war, *Mississippi* was based on the West Coast.

From August to November, after the carrier battles of Coral Sea and Midway, she was tactically deployed as an uncommitted reserve for our Central Pacific Forces, operating mostly in Hawaiian waters, in strategic support of our light scouting.

In the opening months of 1943 *Mississippi* operated with our Pacific Forces and, among other duties, formed the backbone of a task force which extricated the battle-damaged cruiser *Pensacola* from the Solomons area after the Battle of Tassafaronga, and escorted her to the vicinity of Samoa. Toward the end of February, *Mississippi* returned to Pearl Harbor as escort for the badly damaged cruiser *Minneapolis,* and she herself, underwent much needed repairs.

The desperate shortage of major combat ships allowed *Mississippi* only a short stay in Hawaii before she was ordered to North Pacific waters, arriving at Kuluk Bay, Adak, in May of 1943. *Mississippi,* along with other of our naval units, was to conduct screening operations against known superior Japanese forces to protect our bases and communication lanes so that material could be concentrated and personnel staged to retake these islands. The tour of duty in the Aleutians was at first dull and uneventful, with her greatest battles waged against the elements and the dreary monotony of North Pacific duty. This area, with its windy blasts that sometimes reach velocities well above 100 knots and which roll up unbelievably gigantic seas of 50 to 70 feet from trough to crest, was the global war's most rugged theater from the climatic standpoint.

The monotony was allayed when, on 22 July, with our forces poised for the assault, *Mississippi* blasted away at Kiska with her big guns, in a bombardment preliminary to the landing. After months of continuous operations in this area, she returned to San Francisco for necessary dry-docking and repairs.

On 10 Oct 1943, she shoved off to begin the Gilbert Islands operation. The neutralization of enemy defenses on heavily fortified Makin Island was her objective, and it was here on 20 November, while lobbing shells into the main Japanese fortifications, that irony entered the history of Old *Mississippi.* Her number two turret was again the scene of an accident almost identical in every respect to the tragedy of 1924. A flareback occurred from one of the guns, killing 41 of the ship's complement. As in the practice exercise 19 years before, *Mississippi* did not miss a salvo with her remaining guns and continued to cover her objectives without interruption throughout the rest of the bombardment.

MIGHTY MISSY, minus her old cage masts and with altered hull, shows off new look passing in Fleet review.

WORLD WAR II again saw *Mississippi's* big guns blast enemy as she joined other fighting ships in Pacific.

The refitting of the gutted turret again took the ship to Pearl Harbor but late in January 1944 *Mississippi* was under way once more, this time for the Marshall Islands operation. The island of Kwajalein was the main objective, and *Mississippi* was assigned the western end as her fire support sector.

Before the main assault on D-Day, her principal missions were to destroy an eight-foot concrete seawall which ran along the landing beach—an obstruction which, if left intact, would have made the landing very costly, if not impossible—and to knock out coastal defenses and dual purpose guns in order to prevent fire on the transports which were unloading troops for the assault on Engebi Island.

Another of her tasks was to give close fire cover and protection to a small boat crew—the forerunner of the Underwater Demolition Teams—as they made their high- and low-tide surveys to find boat lanes through the reefs and Japanese defenses. The seawall was demolished, and neither our transports nor our close-in reconnaissance teams received excessive hostile fire as they carried out their vital work.

After Kwajalein had been secured, the Commanding General inspected the remains. This is what he had to say:

"We have just come back from an inspection of the western end of Kwajalein Island and particularly that portion which was *Mississippi's* target. The destruction is really beyond description. Shell and bomb craters are everywhere, with trees uprooted or cut down and all vegetation destroyed.

"*Mississippi's* beach was defended by a concrete seawall at the corner, and further down toward the eastern end was a heavy log revetment with the logs inclined at about 30 degrees from the horizontal to act as tank traps.

"Behind these barriers there were any number of machinegun nests protected by concrete walls around them. There was a large and very strongly built command post of reinforced concrete in this area and also numerous 3-inch guns scattered at various places.

"Everything in this area was literally blasted out of the ground and, after looking at it, you did not see how anyone could have stayed there and not be killed. We

HAND LAUNDRY — BBmen of old Navy faced problem of keeping whites clean with scrub session on deck.

can readily understand now how the Army was able to land on this beach without opposition.

"Thousands of soldiers are on the island with tanks, artillery and all sorts of motor equipment. They all seem to be in good spirits and are happy over the fact that the Navy was able to clear the way for them."

There was not much rest in those days for the few fully operational heavy combat ships of our Fleet. Seriously in need of regunning, *Mississippi* was ordered back to the States. Three months later, completely regunned and fitted with some of the newer developments in combat equipment she shoved off for Purvis Bay in the Solomons.

During the following months, *Mississippi's* assignments closely reflected the course of progress in the Pacific. She provided fire support for the Marines at Bloody Nose Ridge in Peleliu, almost literally grinding to powder the coral hills which provided so many caves and strongholds for the defenders. Then, a few days later, in company with a powerful invasion force, she sortied for Leyte Gulf, first step to the Philippines.

As FLAGSHIP OF THE BATTLE LINE, *Mississippi* served during the action of Surigao Strait in the Battle for Leyte Gulf. In this largest surface action of World War II, the Japanese southern force of battleships, cruisers and destroyers was annihilated. As a result of all three actions in the Battle for Leyte Gulf, the enemy fleets were rendered ineffective for the remainder of the war and our initial foothold in the Philippines was saved.

For the next 23 days *Mississippi* continued to cover the Leyte landings. The day following the night battle, Kamikaze attacks first began to take a heavy toll among our ships. Air attacks became almost continuous, for in the 36 consecutive days that *Mississippi* and other ships of the task force prepared for, supported, and covered the United States return to the Philippines, general quarters for air defense was sounded 62 times with 38 actual air attacks developing. Once, one of our destroyers, mortally wounded by a suicide crash, jettisoned its torpedoes in a final desperate measure to remain afloat. The wakes of several of them came straight for *Mississippi,* and as all hands tensely awaited the explosion, the commanding officer threw the ship into a hard port turn and let them slide harmlessly by.

After 36 continuous combat days and weathering 38 air attacks, three direct Kamikaze crash-attacks, a salvo of stray torpedoes, unswept mines, and one major sea engagement and coming out unscratched, *Mississippi* was relieved and sent back to Manus for repairs.

On 2 Jan 1945, *Mississippi,* as part of the Lingayen Attack Force, sortied south from Leyte Gulf through Surigao Strait and began penetration of the hitherto enemy-held waters on the way to Luzon. As the task group proceeded through the narrow channels of these restricted waters, the enemy mounted continuous air attacks from their many fields throughout the Philippines. Kamikazes were plentiful. At times not even the combined antiaircraft fire of the whole group was able to account for all the planes that broke through the Combat Air Patrols. At sundown on 4 January, the escort carrier *Ommaney Bay* was hit by a Kamikaze and was soon flaming from bow to stern. A few hours after a torpedo from the destroyer *Burns* had administered the coup-de-grace to the doomed carrier, *Miss* received 158 survivors aboard. Before their objective had been reached, many of our heavy units including *Louisville, Manila Bay,* and HMAS *Australia,* were substantially damaged.

A KAMIKAZE ATTACK, a few days later, seriously damaged *Mississippi,* killing 26 and wounding 63 besides causing serious internal damage. It might be of interest to damage controlmen to learn that when, during emergency repairs, it was found that the ship's crane could not lower the cofferdam into position, the first lieutenant improvised by training out Turret IV and using the center gun as an emergency crane. This cofferdam, forced into position by flotation pressure, kept out the ocean long enough to enable the welders and cutters to repair the shrapnel holes. Divers went over the side to plug the numerous holes in the skin of the ship not reached by the cofferdam.

Working long hours in the hot, confined innards of a homemade cofferdam over the ship's side in a cumbersome diver's rig, the ship's own force soon completed temporary repairs that enabled her to continue effective support of the operation for the next 34 days.

Upon arriving in Leyte Gulf she found orders to proceed to Ulithi in the Western Carolines as support for the Iwo Jima assault, then about to begin. With the battle damage she had received almost two months before still only temporarily repaired, *Miss* stood by in Ulithi lagoon as the uncommitted reserve for another operation. She had been in combat with only short periods of rest since the preceding September, a period of almost six months.

When, on 5 May 1945, after repairs at Pearl Harbor, she arrived off Okinawa, *Miss* was greeted by one of the heaviest air attacks of the entire campaign and thus began her 44 days' stay under the wings of the Kamikazes.

Droves of planes made conventional as well as suicide attacks throughout each day, while at night, smaller groups of radar-equipped planes harassed our forces almost continuously. After pinpoint firing all day, *Miss* on numerous occasions, would continue to fire routine illumination and harassing assignments throughout the night. Sometimes for a period of days on end there was hardly an hour when some of her guns were not firing. During this whole period, air raids were frequent, reaching 34 in one night.

As THE 44-DAY PERIOD at Okinawa, under constant

air attack interspersed with sudden and concentrated fire from enemy shore batteries, drew to a close, it seemed as if *Mississippi* might get away unharmed. But one twilight after she had finished a routine shoot and lay off the western shores of Southern Okinawa awaiting her night assignment, two enemy planes roared in low over the water.

The two bombs under the Kamikaze's wings exploded against the ship's hull, the plane disintegrated against Turret No. IV, spraying flowing gasoline over the quarterdeck. Serious structural damage had been done. Several blisters were flooded, the ship's skin punctured, one aircraft was put out of commission and it was feared that Turret No. IV would not be able to fire.

However, the ship's company made emergency repairs which enabled the *Miss* to fire a harassing assignment that same night and to continue to render fire support with all her turrets until she left the operation.

By the time *Mississippi* was ordered to Leyte for repairs, her main engines had not been secured for 53 days, she had been in the operation for more than 60 consecutive days, and Turret No. II, by shooting more than 1,000,000 pounds of ammunition, had set a record for the greatest amount ever fired by a single turret in one engagement. She had burned 1,876,182 gallons of fuel oil during those 60 days. *Mississippi* was a tired old lady and she had reason to be.

She remained in the Far East until the Japanese surrender, and then was ordered to her new home port at Norfolk, Va., where she again underwent extensive alterations. Three of her 14-inch gun turrets were removed and the latest gunnery, fire control and radar equipment installed. She began operating with the Operational Development Force in the Atlantic in 1947 and, until the time of her retirement, was employed to test, develop and evaluate new weapons and equipment.

DURING HER 39 YEARS of continuous active duty, *Mississippi* was representative of the greatest eras of U. S. naval history. In peacetime, she was outstanding among the ships of the Fleet in maintaining the highest standards of gunnery, engineering efficiency, smartness, discipline and morale. These factors paid off during World War II when she participated in eight major campaigns, steamed nearly 170,000 miles, fired some 10,000,000 rounds of ammunition, and destroyed innumerable enemy fortifications. She withstood repeated direct hits by enemy pilots. She was confronted with almost every test a ship could meet: typhoons, surface engagements, prolonged bombardments, underwater attacks, duels with land artillery, endless air attacks and long periods of grueling patrol duty. These tests were imposed under every conceivable condition—in the Atlantic, the Pacific, in the Arctic and in the tropics.

The text of the Navy Unit Commendation awarded *Mississippi* by Secretary of the Navy provides a resume of her World War II service:

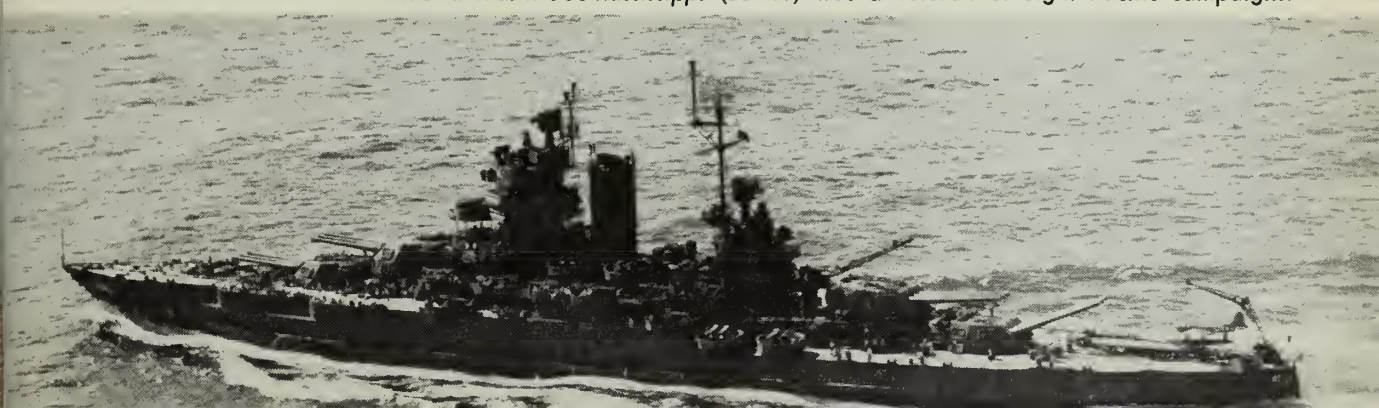
"For outstanding heroism in action against enemy Japanese forces in the Pacific War Area, from October 12, 1944, to June 19, 1945. As Flagship of our battle line during the historic night battle of Surigao Strait, USS Mississippi *led our forces in annihilating the heavy Japanese surface units. For thirty-six continuous combat days, she continued bombardment missions to cover the Leyte landings and, in the face of vicious Kamikaze attack with almost no air support, led our embattled Naval forces as they guarded our foothold in the Philippines. In making the daring initial penetration of Lingayen Gulf on January 6, 1945, she fought off suicide planes in their supreme attempt to cripple our heavy ships and, for the next forty days, effectively bombarded shore installations, supported our amphibious forces on the landing beaches and provided a covering force until Luzon was finally secured. Undeterred by the continuing Kamikaze batteries, she again provided effective fire support to our troops on the Okinawa beaches. Climaxing her career by the brilliant three-day bombardment of the most strongly fortified position encountered in the Pacific War, she completely destroyed Shuri Castle and enabled our Marines to capture this stronghold almost without opposition. A sturdy veteran, handled superbly by skilled officers and men,* Mississippi *fulfilled all her missions despite the most intense opposition, attaining an outstanding combat record which reflects the highest credit upon herself and the United States Naval Service."*

Test Ship for Tomorrow's Navy

The USS *Mississippi* is probably best known today for her efforts in testing and evaluating the guided missile *Terrier*. Actually, the ex-BB-41 was the backbone for the test and evaluation of just about every item of armament and equipment which has been introduced in the Navy's surface ships during the past ten years.

Tests have been run on items ranging from flashlights and fans to automatic 5"/54 guns and guided missiles. Among the numerous but little-known operations performed by *Ole Miss* were tests of: various types of radar, navigation, and communication equipment; torpedoes, fire control systems, anti-corrosive paints; and habitability features now present in many ships.

HOMEWARD BOUND — At end of World War II USS *Mississippi* (BB 41) was a veteran of eight Pacific campaigns.



TAFFRAIL TALK

OLD TIMERS who have recently come on board the Brooklyn Naval Base have frequently done a double take when they spotted the pennant flying above the commandant's residence. It's a conglomeration of red question marks, exclamation points and stars. Old timers who are *really* in the know recognize it at once as the personal what-the-hell pennant of RADM M. E. Miles, present commandant of the Third Naval District. Seems as though such a pennant, or a variation thereof, was originally hoisted during maneuvers at sea when something had gone wrong and the SOP wanted to know "what the hell" was going on. The Admiral still wants to know.

* * *

No matter what the season, it's always a bright day when two members of the same family can serve in the same ship. Such an occasion arose not long ago when Richard D. Bright, SN (SS), USN reported on board USS *Wrangell* (AE 12) to be greeted by his new CO, CAPT Cooper B. Bright, USN, who also happened to be his father. Both had traveled quite a distance, career-wise, before their paths crossed in *Wrangell.* Captain Bright is a qualified free balloon pilot; his son, a former submariner.

* * *

Our Editor-of-Irrelevant-and-Unconfirmed-Statistics has accumulated a whole fistful of figures with which to addle us this month. While lurking with pencil and clipboard in the Naval Station swimming pool check room at Guantanamo Bay during a recent midshipman cruise he discovered:

Of the 2500 swimmers who used the pool, seven deposited $200 or more; 40 trusted him with $100 or more each; while 11 had no money at all. Smallest sum was 40 cents. In addition to these financial transactions, they loaded the check room down with 631 cameras, 1236 cigarette lighters and 1702 wrist watches. Does this mean our future officers are more time-conscious than light-conscious?

In a fine, final effort, our fact collector asks us to note the 28,000th landing made aboard USS *Wasp* (CVA 18). It was made by a pigeon while *Wasp* was operating off the southwest coast of Taiwan. The unscheduled recovery occurred without warning during routine flight operations. Using a somewhat unorthodox carrier approach, the unidentified aircraft settled on a VF-152 just as the latter was being catapulted. The result was a bundle of loose feathers and indignation as the visitor was swept from one jet blast to the next. The unhappy creature finally succeeded in perching on the island structure where he was rescued and mollified by the flight deck crew.

The All Hands Staff

The United States Navy

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

DISTRIBUTION: By Section B-3203 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

The Bureau invites requests for additional copies as necessary to comply with the basic directive. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Requests from Marine Activities should be addressed to the Commandant.

PERSONAL COPIES: This magazine is for sale by Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 20 cents per copy; subscription price $2.25 a year, domestic (including FPO and APO addresses for overseas mail); $3.00, foreign. Remittances should be made direct to the Superintendent of Documents. Subscriptions are accepted for one year only.

• AT RIGHT: NAVY MUSIC MEN of Unit Band 193 sound off on the flight deck of USS *Lake Champlain* (CVA 39). Like the many other unit bands stationed throughout the Fleet they furnish best in music from ceremonial to pops.

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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DECEMBER 1956

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

DECEMBER 1956 Nav-Pers-O NUMBER 479

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The Chief of Naval Personnel

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The Deputy Chief of Naval Personnel

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• **FRONT COVER: CHRISTMAS FROSTING**—Frozen spray clings to deck and superstructure of *USS Glacier* (AGB 4) turning her into a 'winter wonderland' as she makes passage through heavy seas on an Antarctic mission.

• **AT LEFT: CURRENT JOB**—A. D. Hallan, EN3, USN, checks diesel engine supplying electricity for *USS Hamul* (AD 20) and destroyers nesting alongside while in harbor at Long Beach.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.

For Navy

FROSTY THE SNOWMAN is welcomed aboard *USS Albany* (CA 123) during snow storm in the Mediterranean while cruisermen visit the French Riviera.

CHRISTMAS FINDS many Navymen dutybound and often thousands of miles away from their families. But regardless of where they may be, they still observe Christmas in a somewhat home-like fashion and celebrate the holidays as much as circumstances permit.

In the states, Christmas is celebrated during one of the coldest months of the year but the season finds many Navymen stationed overseas where it's warm all the time. How do they celebrate Christmas?

In sunny Hawaii, thousands of Navymen and their families celebrate Christmas about the same as their counterparts do in the subzero Narragansett Bay area where a white Christmas is usually a reality rather than a dream inspired by a song.

In Hawaii, where the warm trade winds carry strains of Christmas carols across the beaches and through the palm trees, Santa Claus reigns, and Christmas Day is also highlighted by serving of the traditional dinner. The spruce or other varieties of pine trees is the center of attraction during the yuletide season in Hawaii just as it is in snow-capped New England or any other part of the states.

In recent years when shipping strikes almost prevented the annual supply of Christmas trees from reaching the islands, the Pacific Fleet Submarine Force took steps to see that its personnel based in Hawaii had their traditional Christmas trees.

Special arrangements were made with the Department of Interior, and sailors assigned to submarine activities at Mare Island went into the nearby mountains of California and cut enough trees to fulfill the demands of the Hawaii-based submarine sailors.

Not only did every married man under SubPac's control get one of these trees free, but the mess hall, chapel, theatre and departments throughout the submarine base also obtained them. The needs of units afloat were not overlooked either.

FESTIVE LIGHTS for Christmas, decorating ships at Destroyer Pier in Newport, 'warm' the New England sky.

t's a White or Green Christmas

As a result, Christmas trees were prominently displayed from such places as the boxed nose of a submarine or attached to its periscope or radar mast. They appeared on the bridge, or in the case of one ASR, on the yardarm. Decorated trees were also present in almost every passageway, office and building throughout the base.

The Pearl Harbor sailors were proud of the festive yuletide decorations that appeared everywhere. But what the submariners really boasted about was the size of one tree—the biggest Christmas tree in the islands—and perhaps throughout the entire Navy.

This "daddy" of all Christmas trees is an artificial one. It's the 134-foot escape training tank, normally used for teaching submariners how to escape from a stricken submarine. During the yuletide season the tank takes on the appearance of a Christmas tree appropriate only to a Paul Bunyan legend.

During the day, it looks no different from the famed Pearl Harbor landmark which was built in 1932. At night, however, it takes on an almost unbelievable appearance. Its trimmings consist only of lights—approximately 800 of them. Eight strings of multi-colored lights are stretched at an angle from the ground up to the top of the tank which is crowned by a yellow and white lighted star. The star measures more than six feet in diameter and makes a complete revolution every 10 seconds.

This towering Christmas tree is visible from almost every point on the leeward side of the island of Oahu. It can also be seen many miles out to sea by all planes and ships approaching Honolulu or Pearl Harbor.

In spite of Hawaii's subtropical climate, naval activities have little difficulty in assuming the holiday atmosphere. Imported red-berried holly and mistletoe are used almost as much in Hawaii at Christmas time as in the States. The custom of decorating windows, doorways and roof tops prevails throughout the bases and naval housing areas.

At the Submarine Base, which is perhaps the most concentrated of the various activities based at Pearl Harbor, almost every type of Christmas decoration imaginable is displayed.

On top of the AUW shop, which faces the entrance to the sub base nearest the Makalapa Gate, is a large mechanical Santa Claus, complete with eight reindeer and toy-laden sleigh, The heads and legs of the reindeer move, and they appear to be ready to dart off into the night. Santa also moves. He gives his familiar wave as though he were about to depart and move on to his next house call.

Nearby at the Torpedo Shop, hundreds of blue lights form a frame around the shop's many large paneled windows centered in the front and each side of the building. Talented SubPac personnel paint Christmas murals in all the front and side windows that face the street. These bright-colored pastel paintings usually picture a New England village blanketed in snow. Some feature religious scenes while others are centered around the jolly old gent from the North Pole. Christmas music is piped through loud speakers mounted on each corner of the Torpedo Shop.

Across the street in front of the Chaplain's Office, in a natural setting of stone and swaying palms, is the ever-popular Nativity scene.

KING-SIZE Christmas 'tree' formed by 134-foot training tank at sub base in Pearl Harbor can be seen in tropical sky of sunny Hawaii for many miles.

CHRISTMAS FESTIVITIES for Navymen and their wives and friends include many social events such as dance shown here, both overseas and stateside.

USS *ARD-29*, a unit of the Pacific Fleet Service Force, which is permanently moored at the Submarine Base to render services to Pearl Harbor-based subs, is always brightly decorated for the holidays. Last year, the electrical decorations were made and put up under the supervision of the ship's electrician, Duane Offe, EM1, USN. He and fellow crew members strung multi-colored lights along both sides of the gangway and set up Christmas trees on the bow and quarterdeck of the floating drydock. A large white blinking star, which flashed across the calm waters of Pearl Harbor, was mounted on top of *ARD-29's* mast.

During the holiday period, the submarines and rescue vessels homeported at Pearl Harbor cease operations and remain in port in a standby status. They too take on the Christmas spirit, with each submarine trying to outdecorate the other.

In addition to displaying lighted Christmas trees from various parts of the boat, they also take on added color by putting up lighted wreaths, stars, crosses and appropriately worded greetings of the season.

USS *Bonita* (SSK 3) and many other of the subs based at Pearl dress ship during the holidays. *Bonita* and other subs, however, do not dress ship in its true meaning as other ships do. They dress themselves for the Christmas season by stringing multi-colored lights instead of flags and pennants from the bow, up over the conning tower, and down to the stern.

NO SNOW HERE—Santa pays a visit without his sleigh when he calls on Navy families stationed in such spots as Hawaii and other Pacific islands.

Christmas in Hawaii wouldn't be complete without old St. Nick making his usual appearance. Not to be confined because of lack of snow in the islands, Santa wouldn't think of arriving to greet dependent children of SubPac personnel by any means except submarine. One year a submarine returning after an extended cruise to WestPac was diverted North, and arrived at Pearl Harbor with St. Nick himself on the bridge giving commands, instead of the skipper.

The Navy Exchange at the Submarine Base displays a large assortment of toys that delight youngsters of all ages. It stocks more than enough for Santa to fulfill his many requests and usually causes dad's annual savings to be deposited under the Christmas tree.

Christmas in Hawaii or anywhere wouldn't be complete without the traditional religious rites. Candlelight services and midnight mass on Christmas Eve are the order of the day for all Protestant and Catholic chapels in Hawaii. After these services, it is customary for all hands and their dependents to join together and stroll through the base and nearby housing areas singing Christmas carols.

Christmas day itself gets off to a fast start as wide-eyed youngsters hurry downstairs to tear open packages that were mysteriously placed under decorated pine trees.

Mess halls throughout the islands feature the traditional Christmas dinner with roast turkey, ham, duck and all the trimmings being served. On Christmas Day, like Thanksgiving, the married Navymen have the opportunity to give their wives an added treat by bringing them to their ship or base for dinner.

Those who desire to prepare dinner at home usually invite a number of their single shipmates to share the day's festivities with them.

Navy wives find no difficulty in purchasing king-size turkeys and all the fixin's as they are usually available in commissaries and civilian markets by the ship-loads. This year in fact, Navymen and their families in Hawaii will be buying numerous items for Christmas dinner in the new Pearl Harbor Commissary. This large, modern store just opened in recent months, claims the title of "world's largest supermarket."

While most Navymen overseas celebrate Christmas away from home, they still observe it as a "warm" occasion, compared with most bluejackets based in the states.

Judging from the colorful decorations which appeared last year along the cold, wind-swept Narragansett Bay area, the sub-zero weather and choppy seas didn't hold back the Christmas Spirit of Newport-based destroyermen.

From the Melville Net Depot to the Fleet Landing at Newport, sailors aboard approximately 90 ships in the area prepared their ships for the Yule season.

At Melville, where 18 destroyer type ships were berthed at piers, USS *Grand Canyon* (AD 28) mounted a red-lighted cross amidships. Not far from that tender, the 18,310-ton tanker USS *Allagash* (AO 97) berthed at the North Dock, displayed the largest star of them all. Formed with white bulbs, the star measured 50 feet from point to point. *Allagash* crew members also used some 110 bulbs to string a 553-foot line of multi-colored lights from stem to stern.

USS *Sturtevant* (DE 239) had a wooden Santa Claus on her pilot house; USS *Raymond* (DE 341) strung lights of various colors the length of the ship; and USS *Dealey* (DE 1006) had a decorated Christmas tree on her bridge.

While white stars were visible below yardarms of a number of ships moored to buoys in the bay, Santa Claus and his reindeer could be seen aboard USS *Gatling* (DD 671) in the nest at M-15.

Liberty boats leaving the Transit Shed Landing were far from "riding with ease" as old St. Nick did in Hawaii. Icy winds and freezing spray made boating to and from the ships far from a pleasure ride, but they added to the White Christmas theme. Ice-covered launches arrived at landings with coxswains clad in heavy clothing, life jackets and goggles.

Joining in the Christmas decoration efforts were the fleet oilers, USS *Mississinewa* (AO 144), at M-26 with a long string of lights between her three masts, and USS *Severn* (AO 61) at M-24 with a 15-foot cross on her mainmast.

Destroyer Pier One provided a kaleidoscope of yuletide color. USS *Yosemite* (AD 19), ComDesLant flagship, had a block lettered "Merry Christmas" between her stacks and a star on her foremast. The "tincans" of Destroyer Division 202, alongside *Yosemite*, featured USS *The Sullivans* (DD 537) with a sign of red bulbs readings: "Merry Christmas, *The Sullivans*."

Other ships, including USS *McNair* (DD 679), USS *Hancock* (CVA 19), and USS *McGowan* (DD 678) all had colored lights strung like shrouds from their foremasts.

Across the pier, USS *Cascade* (AD 16) had lights running fore and aft. One of the most unusual rigs in the entire harbor was a speckled cross mounted in the forward radar antenna of USS *Benner* (DDR 807) as it was moored alongside *Cascade*. *Benner* also had a Christmas tree perched on her forward five-inch gun mount.

The ships of Destroyer Escort Squadron 12 were also represented in the color parade with lights leading up to the masthead of USS *Tweedy* (DE 532), stars glittering from USS *Tabberer* (DE 418) and USS *Thaddeus Parker* (DE 369) and lights displayed fore and aft aboard USS *Woodson* (DE 359).

From all indications, it is apparent that Navymen—regardless of where Christmas may find them—celebrate the age-old holiday in a most joyful and colorful manner.

P.S. Happy New Year too!

—H. George Baker, JOC, USN

CHRISTMAS GLOW—Superstructures of Amphibious Force Flagships moored at Norfolk, Virginia, become glowing Christmas trees during yuletide season.

SPREADING CHRISTMAS cheer throughout the world has become traditional with the men of the Fleet. Here, sailors hold party for Japanese orphans.

THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **AUGUST EXAMS PAID OFF**—More than 60,000 enlisted Navymen were authorized in November to advance in their respective ratings to pay grades E-4, E-5 and E-6 as a result of the August service-wide examinations.

Breakdowns show that 39,473 may be advanced to pay grade E-4; 16,596 to pay grade E-5; and 4944 to pay grade E-6.

In addition, 1814 in certain ratings, as determined by the Chief of Naval Personnel, may be designated as strikers by their commanding officers.

• **DESIGNATED STRIKERS** — The process of becoming a designated striker is more selective now. If you want to become a striker, you must show definite proof that you are well qualified.

There are only two ways in which you can become a designated striker: (1) successfully complete a Class "A" school, or (2) make a sufficiently high score on the service-wide examination for advancement to indicate that you are well qualified for the rating, even though your final multiple and/or examination score was not high enough to warrant promotion.

Under this policy, more controls will be placed on the number of men who are designated strikers in specific ratings and the quality of the individuals so designated will be kept at a high level.

Once you become a striker, the only way you can change your designation is upon approval by the Chief of Naval Personnel. Among other things, if you desire to change your designation, you must prove that you're qualified to strike for the new rating by successfully completing the Navy Training Course, practical factors, and a locally prepared examination for the rating desired.

The only way to lose a striker designator is through incompetency. The CO must justify such action by an entry in a man's service record showing an unsatisfactory evaluation in "professional performance." All other cases in which it is found that a man no longer rates a striker designation must be referred to the Chief of Naval Personnel.

A striker or third class PO who is reduced in rate for disciplinary reasons will still keep his striker identification. But if he's reduced in rate for incompetency, he'll also lose his striker designation.

Complete information may be found in BuPers Inst. 1221.1A.

• **OFFICERS TO SUPPLY CORPS**—Line officers of the Regular Navy with the rank of ENS, LTJG and LT, with date of rank of 2 Jul 1954 or later are eligible for transfer to the Supply Corps. LTs and LCDRs who are not physically qualified for continuance in the line are also eligible for transfer to the Supply Corps.

Those officers applying must complete at least one year of sea duty before 1 Feb 1957, the deadline date by which applications should be received by the Chief of Naval Personnel.

The Chief of Naval Personnel will acknowledge all applications received and will inform individuals of their selection or nonselection as soon as practicable after the selection board meets on or about 21 Feb 1957.

Officers selected for transfer to the Supply Corps will be ordered to the Naval Supply Corps School at Athens, Ga., for duty under instruction for a period of about six months. Complete details may be found in BuPers Notice 1210.

• **IDEAS FOR NAVY LOG**—Have you had any unusual experiences since you joined the Navy? Submit them to: "Navy Log" Project Officer, Chief of Information, Navy Dept., Washington, 25, D.C.

Ideas and suggestions are all that is needed. Researchers and professional script writers will do the rest. Who knows, your experiences or idea may be featured nationally on the weekly "Navy Log" TV series.

• **'57 RECRUITING AND RETENTION PLAN** — A Master Recruiting and Retention Plan has been launched by the Navy in an all-out attempt to fulfill its personnel requirements during fiscal year '57 without depending upon selective service.

Through "Personalized Recruiting and Retention," the Navy during the next year plans to:

- Recruit 90,000 new four-year men.
- Accept 24,000 enlisted Naval Reservists, on a voluntary basis, for two years of active duty.
- Obtain a minimum reenlistment rate of 25 per cent among those completing their first enlistment. (Current rate is from 10 to 14 per cent.)
- Maintain a 90 per cent reinlistment rate among career personnel.
- Restrict enlistment of personnel in lowest mental group (IV) to 18 per cent of the over-all total of new recruits and obtain the highest allowable percentage of those in upper mental groups.
- Procure a total of 16,000 new officers.

Plans for required officer input calls for the commissioning of 5500

Remember the Christmas spirit! — Share ALL HANDS with nine of your shipmates! Be sure to PASS THIS COPY ON.

ensigns through the Officer Candidate Program and 2600 from Naval Aviation Cadet and Aviation Officer Candidate Programs.

Approximately 500 enlisted men will be commissioned during Fiscal Year '57 as a result of these programs. The 500 enlisted men scheduled for commissions are in addition to these selected under the Warrant Officer, Limited Duty Officer and Integration Programs.

Through the efforts of the Master Recruiting and Retention Plan, the Navy expects to fill its authorized strength of 672,000 — — 73,800 officers and 598,200 enlisted men by 30 Jun 1957.

• **TRAILER WARNING** — If you're planning to hire a commercial mover to transport your trailer from one duty station to another, better check into your carrier's credentials. Reports indicate that a number of Navymen have been victimized by financially irresponsible haulers who, in the event of an accident, have been found to carry no insurance and have been unable to pay for the damage incurred.

The best way to avoid such a situation is to be sure that your carrier has been certified by the Interstate Commerce Commission, which has set up regulations for your protection.

Certificated carriers are those that comply with the regulations and are issued a certificate by the ICC and are required to file tariffs. One of the requirements of ICC is that the carriers must be financially responsible and be covered by insurance.

• **USNR Officers on Active Duty—** If you're a Naval Reserve officer with an indefinite release date you may, with certain exceptions listed below, expect to remain on active duty for the foreseeable future.

If you are scheduled for release from active duty because of expiration of obligated service or voluntary extension you may, if you wish, request an extension of active duty for a specific or indefinite period. Officers whose active duty agreements expire are automatically assigned indefinite release dates.

If you are on active duty (other than TAD or AcDuTra) and are within two years of qualifyng for retirement with pay under any purely military retirement system, you will not be involuntarily released from active duty before qualifying for retirement pay unless your release is approved by SecNav.

According to the provisions of BuPers Inst. 1926.2A, which sets the policies for retention and release from active duty of USNR officers, Reservists will be released from active duty if they fall in the following categories:

• Those officers, except members of the Medical, Dental and Nurse Corps, who are eligible to retire with pay under the provisions of any retirement law will normally be released with a minimum of four months' advance notice. Retirement requests should be submitted at least two months before the effective date of retirement.

• Men officers, except those of the Medical and Dental Corps, in the grade of commander who reach age 58, and lieutenant commanders and below who reach age 52 will normally be released with four months' notice.

• Women officers, except Medical Corps officers, in the grade of commander who reach age 55 and lieutenant commanders and below who reach age 50 will normally be released with four months' notice.

• Officers in the grade of commander and below, except officers of the Nurse Corps, who twice fail of selection while on active duty will normally be released on 30 June of the fiscal year in which they fail of selection for the second time.

• Women officers, except medical officers and nurses, who are serving in the grades listed below and are not on a promotion list will be released from active duty on 30 June of the fiscal year in which they complete the following years of active commissioned service: lieutenant (junior grade), seven years; lieutenant, 13 years; lieutenant commander, 20 years.

It should be noted however, that the Chief of Naval Personnel may release any Naval Reserve officer at any time on the basis of unsatisfactory performance.

The above paragraphs, which discuss the release of USNR commissioned officers, are also applicable to USNR warrant officers.

The exception of Medical, Dental and Nurse Corps personnel from certain of these release policies is not intended to result in the involuntary retention of these officers. If eligible, and they desire their release, they may notify the Chief of Naval Personnel of their intent.

HERE'S YOUR NAVY . . .

Men of the Sixth Fleet received a message from ComSixthFlt on 16 Nov 1956. ALL HANDS, *believing that message to be of interest to other elements of the Navy, passes it on.*

★ ★ ★

Through press reports you have all been able to follow the main outline of events in the Middle East and are aware of current efforts to restore peace and security in the area. But after three weeks of continuous steaming for most of you, I do not have to be told the question uppermost in your minds.

I do not know how long we will be at sea nor can I predict how long our presence will be required in the Eastern Mediterranean. I can only hope with you that the answers come soon and that they will be the answers we all want to hear.

★ ★ ★

Meanwhile I think it will help if occasionally we remind ourselves and our loved ones at home that it is times like these that give point and meaning to the existence of our Navy. It is times like these that give us new pride in the uniform we wear and the cause we serve.

The Sixth Fleet is made for the job it is doing. No other force in the world can do it so well. The Sixth Fleet is a great stabilizing influence throughout the Mediterranean. It is a watchful protector of American lives and American interests.

★ ★ ★

Should the grim need arise it will be a formidable opponent with a Sunday punch no aggressor dare ignore without regret. The Sixth Fleet is men — you and I and all the rest of us.

I share with each of you the alternating boredom and uncertainty of each passing day. I would like to think that each of you share with me the quiet satisfaction of knowing that but for our presence here things might be a lot different.

/s/ Charles R. Brown, VADM, USN

SERVICE RECORDS-

SO FAR AS YOUR CAREER is concerned, you are as good as your record says you are—no better and no worse. Decisions involving promotion or advancement, training, duty assignments, discipline, pay and allowances, rights and benefits are determined, to a large extent, by the information contained in your service record.

Your service record is as important to the Navy as it is to you and, because of this mutual interest, you can be sure—no matter who you are—that the contents of your record are as zealously guarded and as carefully administered as modern methods and ingenuity will permit.

For one thing, *Navy Regulations* designates the Chief of Naval Personnel as responsible for the maintenance of service records of all personnel in the Navy, including Naval Reserve and NROTC personnel.

This adds up to a lot of work. Maintenance of these records is of such importance that more than one-third of the people employed by the Bureau, under the direction of an Assistant Chief of Naval Personnel, are engaged in this task. This is where you'll find the records:

- In the Bureau itself are kept the records of all enlisted personnel, Regular and Reserve, now under an enlistment contract, including those retired and those in the Fleet Reserve.
- The service records of former enlisted personnel are stored in the Discharged Enlisted Personnel Records Branch of the Bureau, at the Department of Defense Personnel Records Center at St. Louis, Mo.
- The records of NROTC midshipmen and Regular and Reserve officers who are not retired are kept in the Bureau; those for retired and former officers are stored in the Navy Records Management Center, Alexandria, Va.

All records stored outside the Bureau are in the physical custody of the Navy Management Office but under the technical control of the Chief of Naval Personnel.

There are several popular misconceptions regarding personnel records. The Officer's Service Record maintained in ships and stations and in Commandants' Headquarters, for example, is not a duplicate of the official Officer's Record maintained within the Bureau. It is a record of his service officially authorized to be maintained in the field to help a commanding officer familiarize himself with the abilities, specialties and background of the officers attached to his command. When an officer is separated from service this service record is turned over to him.

The official "Officer's Record" maintained within the Bureau for each officer in the naval service consists of a Selection Board Jacket and Fitness Report Jacket. Correspondence of a general administrative nature is not considered a part of the "Officer's Record" maintained by the Bureau and is filed in a separate jacket referred to as the Officer's Miscellaneous Correspondence and Orders File. This file includes copies of orders, officer order memoranda, reports of leave, beneficiary slips, home address and other material which may be needed for administrative purposes but not required in his "Officer's Record" for evaluation. The Enlisted Service Record maintained by ships and stations is a field record of an enlisted man who is serving under an enlistment contract. This record consists primarily of original documents of which copies are in the Enlisted Service Jacket in the Bureau.

If you are at present enlisted, the

YOUR NAVY REPORT CARDS

Enlisted Service Record is your official record (and the most reliable one). The duplicate material maintained in the Bureau is used for many administrative purposes and permits reconstruction of your service record if it is lost in the mail, your ship is sunk, or because of some other catastrophe.

When you are discharged, your Enlisted Service Record is forwarded to the Bureau and combined with the material maintained in your Enlisted Service Jacket. Thus, the jacket at this time becomes the official and most reliable record, containing, after your discharge, the originals of your important documents.

Another common misconception is that an officer or an investigator of a government agency is entitled to review the records of enlisted men or other officers. This is not so.

Before a record is made available to *anyone*, he must state the reason for his request and his request will be rejected if it does not comply with the strict letter of the law. Severe penalties are prescribed for unauthorized removal of material from, or alteration of, official records. Except for review by the individual himself, his agent, or duly constituted boards, access to service records is governed by a set of strict rules.

However, you yourself may review your own record at any time, or you may authorize (in writing) any other person to do it for you.

Another popular—and incorrect—belief is that records are simply filed away and stay there, gathering dust. Again, not so. They gather data, not dust.

Records are withdrawn from the files for many purposes, such as detailing, promotion, discipline, separation, answering inquiries, investigation, continuity maintenance, as well as review by selection, examining and various other personnel boards. Most of the work of the Bureau involves the use of personnel records.

Since these records are in almost constant use, filing becomes a problem and delays are sometimes met in answering routine correspondence which involves use of the record. That's one of the reasons why you may not receive as prompt an answer as you may wish when you write to the Chief of Naval Personnel.

The answer to your letter may be only one of the 4000 prepared every working day, and your epistle may be buried in the millions of documents sifted, arranged, processed and filed in the Bureau every month. The activity connected with personnel records stored outside the Bureau involves filing almost three-quarters of a million documents and answering more than 150,000 queries each year.

The rights and benefits to which you become eligible upon appointment or enlistment and upon discharge from the armed forces have greatly increased in recent years. So has the need for relevant records and reports to Congress and the Department of Defense. The records must be complete and accurate, yet new requirements are added almost daily which make record-keeping more and more complex and, as a result, tend to make them less and less accurate.

To insure accuracy of these records, the Chief of Naval Personnel tries to keep unnecessary material out of service records and to keep the mechanics of their maintenance as simple as possible. Certain ground rules, based on common sense, are observed to keep record jackets from becoming too bulky and difficult to use. No adverse material is placed in your record without your knowledge and your written statement concerning it.

A by-product of personnel accounting is the completeness of the Bureau jacket. Certain information reported in the Personnel Diary is in turn reported by a Personnel Accounting Machine Installation (PAMI) in the form of punched cards to the Bureau, where it is reconciled with documents which should have been received for filing in the jackets.

You have more first-hand knowledge about your service than anyone else. You are the person best qualified to check the accuracy of your record.

Your record at your ship or station, or in the Bureau of Naval Personnel is always available to you for review. Both an *Officer Record Review Room* and an *Enlisted Record Review Room* are maintained in the Bureau specifically for that purpose. *All hands are invited to make use of them.*

In short, your military personnel record is an important file of documents which are always retained in Navy custody as official Navy Department records and are never destroyed. Only "persons properly and directly concerned" may have access to your record.

You have a direct interest in what is contained in your record and are encouraged to bring to the attention of the appropriate officer any inaccuracy or omission in it. The recording of your personal history is done with the maximum possible accuracy and once recorded, it is hard to change.

By your own actions you write your own history, the Bureau merely records it.

Yokosuka — For Fun

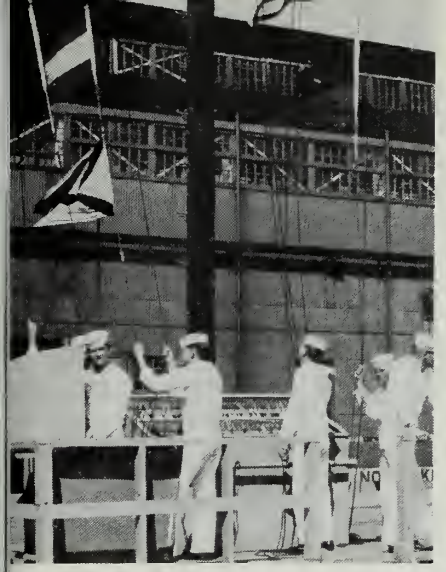
THE HEAVY TRAFFIC of Navy ships in and out of Yokosuka the last 10 years has made this city one of the most visited liberty ports in the world.

Few Navymen sightseeing in this Japanese city have failed to take a trip through the labyrinth of streets and alleys that comprise the downtown souvenir-hunter's paradise. Glamorous and gaudy, this district presents a fascinating panorama of oriental merchandising designed to attract the sightseeing sailor.

A more broadening liberty can be found away from the bright lights of downtown. The outlying farmlands, seashore, ancient shrines, and wooded hills produce a more authentic version of traditional Japan.

Thus many Navymen take the short trip out of Yokosuka to Kamakura. This ancient sea port was long the center of Japanese feudal government. Here are fine examples of traditional Japanese architecture including the world-famous statue of Buddha whose bronze body is over 42 feet high.

Top Left: Navyman looks over souvenirs in one of Yokosuka's many shops. *Top Right:* Motorized ricksha provides easy way to see the sights. *Left:* Signs in Japanese and English announce the wares of merchants. *Lower Left:* Big Buddha in Kamakura attracts attention of sailors touring outlying areas. *Lower Right:* Yokosuka's plush EM club offers many forms of recreation.



nd Fleet Training

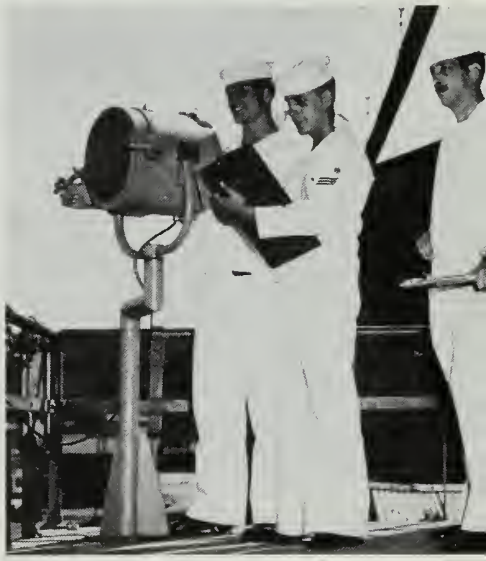
THE CLACK OF SENDING keys has joined the scratchy jazz from Japanese juke machines, while searchlight signals and neon brighten the on- and off-duty hours of many Pacific Fleet strikers these days. The cause: the influence of Nippon nights and days upon students at three new schools now in operation at the Yokosuka headquarters of Fleet Training Group, Western Pacific.

First of the new training facilities is a six-week Signalman School, which is teaching quartermasters and would-be holders of the recently-restored signalman rating the intricacies of semaphore, searchlight operation, flaghoist signaling and the proper way to keep a signal log. The six weeks' course moves at a rapid pace under the tutelage of Kenneth H. Mott, RM1, USN, and Richard F. Dail, QM1, USN, and the graduates return to their duty stations with a good working knowledge of the Navy's visual communications.

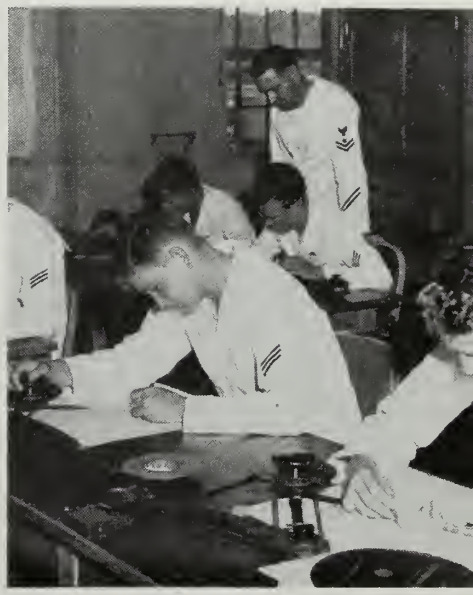
Second is a four-week Quartermaster School, instructed by George W. North, QM2, USN, and designed to acquaint students with the duties of a watchstander and navigational aide.

Radio Operators School, Yokosuka style, is the one formerly in operation at Sasebo, Japan. It was relocated for improved control by ComFleTraGruWestPac. The school is equipped to teach each class of 50 students radio operating, typing, hand-sending, voice circuits, voice procedure, CW (Continuous Wave) manual circuits and CW procedure. In addition to instruction provided by Eual E. Kirksey, RMC, USN, Joseph Simchera, RM1, USN, and William Kirchner, RM2, USN, the school curriculum includes the use of several motion pictures covering basic electronics.

Other training available at the training group's Yokosuka headquarters includes (in addition to "beach logistics") courses in the operation of motion picture projectors, aerology, basic atomic defense indoctrination, fire fighting, cold weather indoctrination and there is also a course in food sanitation.



STUDENTS LEARN use of signal searchlight. *Below Left:* William Riley, ETC, calibrates radio receiver at school. Right: QM students work with charts.



ABC Sailor

D-DAY IS OVER. The landings have been made; the beachhead is secure. Enemy troops have been withdrawn from the island—at least temporarily.

It won't be long now before your outfit really starts to roll. As a member of an advanced base command it's your mission to set up what's known as an advanced base.

In this case, the base you set up must be capable of supplying anchorage, berthing space and logistic support for a hunter-killer group made up of one CVE and six DDs or DEs. In addition, the base must be prepared to handle weekly arrivals of small convoys of eight to 10 vessels, four or five naval auxiliaries and merchant vessels in need of minor repairs.

The base will be staffed with about 4000 officers and enlisted men. Provisions must be made for antiaircraft artillery and helicopters.

Sounds like quite an assignment, doesn't it?

Yet that's the sort of problem an advanced base command faces in time of war. It requires a considerable amount of preparatory thinking and work—and a pool of trained personnel to draw from. Naval Re-

MOVING IN on enemy's heels, Advanced Base Command units can quickly turn war-torn area into operating base.

Are Match for Lions, Cubs

serve Advanced Base Command units solve such theoretical problems during their annual periods of active duty for training.

The Advanced Base Command Program of the Naval Reserve is made up of 25 units, designated as "LION," "CUB," or "ACORN" divisions. The allowance for a LION division includes billets for personnel available for assignment to a large advanced base. A CUB is billeted by personnel earmarked for small advanced bases. An ACORN division allowance includes billets for men available for assignment to a Naval Air Station in an advanced area.

Members of these divisions attend 48 drills and are required to perform two weeks' active duty for training (AcDuTra) each year.

Drill night instruction includes lectures, group discussions and practical problems dealing with the various phases of planning, organization, administration and operation of advanced bases.

A training pattern, involving a three-year cycle, has been prescribed for AcDuTra. During the first year, emphasis is on training the individual in his specialty. During the second year, Reservists train at continental stations, bases or air stations, combining on-the-job training and group participation in the solution of problems—both hypothetical and actual—that would apply to the type of unit in training. Third year AcDuTra calls for training at outlying or overseas bases. There, Reservists receive on-the-job training and take part in the solution of practical problems under conditions approaching advanced base environment.

Members of CUB Command Division 11-1, Los Angeles, Calif., recently took part in a third-year AcDuTra exercise at San Clemente Island, Calif.

The Reservists had as their training mission, the establishment of a CUB base similar to the one described above, and an ACORN base capable of carrying out effective anti-submarine warfare operations.

While the actual assault operation and physical construction phases of the bases were omitted, every effort was made to make the training as realistic as possible.

Actual island conditions were used for the problem; existing installations on the island were ignored.

Here's how the Reservists tackled their problem.

The Division received detailed instructions outlining all phases of the two-week training period. Reservists toured accessible parts of the island to become familiar with the terrain.

They were supplied with "intelligence information" to help them determine the attitude of the "native population." Intelligence reports indicated that the Reservists could count on friendly cooperation from the people and that internal security measures need not be greater than those used in an allied country. However, enemy air- and submarine-launched missile attacks were a possibility, as was enemy use of atomic weapons.

A seminar was conducted at which the preliminary layout of the base—with as many alternate choices as possible—was established. This work was done with the aid of available maps and charts of the area.

Instruction was given covering the possibilities and limitations of actual physical construction in the areas under consideration. This covered

RESERVE ADVANCED Base units train to be ready to direct establishment of advanced bases. *Below:* Reserve officers study construction during drills.

PLANS FOR advanced base include berthing and care for ships. *RT:* ACORN officer learns about the mission of YTB.

buildings, storage facilities, pipe lines for fuel and water, communications facilities, roads, waterfront facilities and an anchorage.

After this study of space requirements and construction limitations was completed, a reappraisal was made of the preliminary base layout. Revisions were made, as appropriate, and more careful drawings were prepared.

Once the preliminary studies were completed, the Reservists were given detailed instruction in the various phases of the operation. They gained knowledge of base and perimeter defense; harbor installations, harbor defense and the protection of ships; and sanitation and water supply.

Training in each phase was thoroughgoing. For example, members of Naval Reserve Harbor Defense Division 11-3(OP), San Diego, Calif., flew to San Clemente Island to demonstrate harbor defense techniques to Reservists in CUB unit.

Topics covered included underwater detection gear, such as sonoradio buoys, cable-connected hydrophones, surface search radar and helicopter assistance.

The final phase of the training problem was a review of the operational requirements of the base, aimed at developing the most economical use of men, equipment and material in the construction of an advanced base.

Seminars were held so that each student could gain basic knowledge of the requirements of all the departments involved in the operation.

Members of Advanced Base Command units must be trained in the operation of an established base as well as in the planning and setting up of a new base.

Reservists in ACORN Command Division 1-2, Boston, Mass., pioneered this type of AcDuTra when they flew to the naval station in Bermuda for active duty for training.

The ACORN members paired off with their opposite numbers at the station. On-the-job training was the primary mission of this training cruise and the Reservists gained first-hand knowledge of how an established outlying base operates.

It is practical, realistic training such as this that keeps these Naval Reservists "on top" of the changing problems of modern warfare. If "Mob-Day" comes, they'll be ready.

ADVANCE BASES provide operational headquarters for Navy air arm. *Below:* Tinian was advanced base in WW II.

Last Days of the 'Marianas Express'

After 11 years of service, the battered veteran of a thousand strange journeys is on her last trip home to find a place in the mothball fleet.

You won't find her name in any of the current histories, but *Old 448* holds a place in the folklore of the Marianas greater than that of *Constitution, Forrestal* or *Nautilus.*

From copra to cement, from livestock to sewing machines, plus passengers of all sizes and ages loaded within the four sides of her tank deck, USS *LSM 448* has chugged from island to island since 1953. Every three months she has touched at Tinian, Saipan, Anatahan, Alamagan, Pagan and Agrihan on a routine administrative trip to haul medical supplies, food, transport the natives from island to island and pick up the copra harvest on each island—which is later hauled to Japan.

A typical trip would begin at Saipan where, after unloading cargo hauled from Guam, the crew of three officers and 50 enlisted men lay over for a day or so before departing to the north. Early in the morning of the day of departure, the hundred or more natives who make the trip would arrive laden with their belongings, which might include food, chickens, pigs, canoes, ox carts, or almost anything else that can be named.

Many of the passengers would be returning to their home islands after attending school, receiving treatment at Saipan's naval hospital, working, or just traveling for the fun of it.

Residents of the Marianas think nothing of moving from island to island, so they occasionally pack all their belongings on the seagoing moving van and start housekeeping at another site.

LSM 448 served as moving and cargo van and also as a passenger vessel for those making a round trip to visit friends and relatives at some other spot in the archipelago. Often enough, when they went visiting, the master of the household would decide to take along his favorite cow or pig.

However, the primary reason for the 10-day journey was not to provide local transportation. It was a field trip to permit a dentist, doctor, missionary, a health sanitation specialist or an agriculturist to provide necessary aid and education to the Northern Marianas.

On the outbound voyage the ship would spend an hour or so at each island, while the doctor checked for medical emergencies. Food and medical supplies were unloaded at that time also. Each island has its own village doctor who had been given special training for treating emergencies between the visits of *448*, with the medical supplies issued.

The dentist who accompanied the ship would usually be left on one of the islands with his portable dental unit while *448* went on. On the return leg, he would be picked up and brought back to Saipan. The ship would spend a day, or day and a half at each island on the return trip, loading copra and any other items destined for Saipan.

Also included in the medical team which accompanied the ship was an environmental sanitation technician who gave instruction concerning sanitation.

While serving in the Marianas, *448* became a familiar sight to all the inhabitants. Chances are, her skipper, LT. H. J. Beyers, and her crew will be remembered for as many years as the "Marianas Express" rests in mothballs. Her crew insists that, never once, did she fail to uphold her motto: "You name it—we haul it."

—James E. Janssen, JO3, USN.

STRANGE CARGO for a Navy ship, but *USS LSM 448* is a veteran of unusual journeys among Marianas. Below: She loads at Saipan for 10-day cruise.

LETTERS TO THE EDITOR

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D. C.

More Light on Ampere

SIR: In the August issue of ALL HANDS you published an article about USS *Mataco* (ATF 86) returning to San Diego after serving continuously for three years in the Western Pacific. What's so great about that? Three years is just a drop in the bucket, when you consider that the ship which I'm aboard left the states in 1950 and has been in the Far East ever since. She has never been back to the States nor is she currently scheduled to return.

In an earlier edition of your magazine, you published an article dealing with the importance of minesweepers and their job in "leading the Fleet." How can you say this and forget to mention my ship, which readies minesweepers so they can safely operate in waters infested with mines and other underwater explosives?

All ships sooner or later must go through a degaussing test and if necessary, be depermed. Not only does my ship do this, but it's the only ship in commission that is capable of deperming other ships up to and including destroyers while they are underway.

In addition, my ship is the only one in commission that is responsible for operating a shore establishment. I've never seen anything about this ship in your magazine and I think it's about time credit be given where credit is due.

If you haven't guessed by now what the name and primary job of this ship is, you must not be very well versed about USS *Ampere* (ADG 11). Why not let the Fleet in on this "well guarded secret?"—J.R.J., YNT3, USNR.

• *Wish we heard from more Navymen who are as proud of their ships as you are of* Ampere.

The importance of Ampere *and the fact that she is the one and only degaussing vessel in commission* IS NOT *new to* ALL HANDS. *We know that* Ampere *exists, but your letter is the first information that we have received about her. In fact, OpNav does not have a copy of your ship's history on file. (OpNav Inst. 5750.7 requires ship's histories to be forwarded annually.)*

Since you are so proud of Ampere, *why don't you write more about her? We always welcome contributions.*—ED.

Who Can Top Twenty?

SIR: You challenged anyone to show longer service than 17 years, nine months on one enlistment. I offer the following information. My original enlistment for four years was on 21 Oct 1933; reenlistment was on 26 Nov 1937; my enlistment was extended on 26 Nov 1941 for three years. On 15 Jun 1943 I was made a Warrant Officer and on 15 Mar 1944, a Chief Warrant Officer (temporary commission). I am now serving in a "dual status" as a commissioned officer and enlisted man, so I am still serving on the reenlistment contract of 26 Nov 1937, which is a total of 18 years, seven months on reenlistment contract.—J. H. Littlejohn, LT, MSC, USN.

SIR: In June 1956 Taffrail Talk you asked anyone to beat the length of John B. Hessley with 17 years nine months time on one enlistment—well my commanding officer, a temporary lieutenant commander, can top that by having 20 years, one month and one day as of 27 Jun 1956 on his present enlistment. Here is how: He reenlisted on 27 May 1936 for four years; on 26 May 1940 he extended for three years; on 15 Mar 1943 he was issued a temporary commission as ensign.—D. N. Goad, YN2, USN.

SIR: In reference to Taffrail Talk of your June issue, I offer the following information concerning the length of my enlistment. I was enlisted for four years on 18 Feb 1936, extended for three years on 17 Feb 1940, and commissioned temporary Warrant Officer on 1 Nov 1942. I am still serving under my original enlistment contract, so far a total of twenty years and five months. I quote you, "Beat that, if you can."—G. C. Nyberg, LCDR, USN.

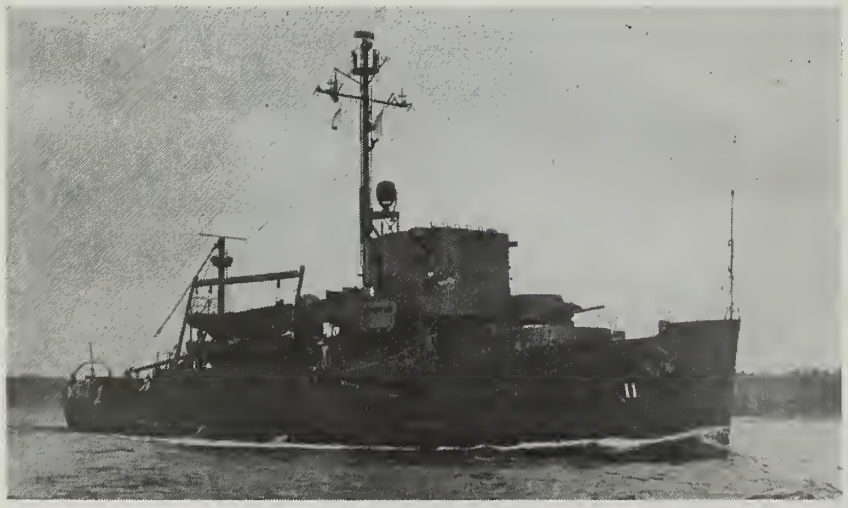
• *On the subject of continuation of original enlistment contracts, it is pointed out that an individual could have extended his enlistment for as much as 4 years, giving him a total of 10 years on an original six-year enlistment contract. As the above cases show, an enlistment contract could be even further extended if an enlisted man accepted a temporary appointment to warrant or commissioned status. The enlistment would be continued until such time as he accepted a permanent appointment, or the enlistment was otherwise terminated.*

Who can top 20?—ED.

We've Got a Hit on Our Hands

SIR: Just finished reading your August issue and find that your "Songs of the Sea" has that wonderful old ballad "Song of the Oarsmen." Well, I tell you now it has been a long time since I've heard that one, and a lot of salt water has washed under the bridge, as they say, but I still enjoy it and have been wondering where I could get the music for this fine old song? I don't care if it's hornpipe or hawsepipe just as long as I can play it on my barnacled old bassoon.

When I was a lad aboard USS *Constellation* we used to sing this old ditty after bedding down the salt pork and beans and setting the sails for



USS AMPERE (ADG 11), the only degaussing ship in commission, and only one capable of deperming a destroyer on the run, has been in Far East since 1950.

sunset, and it was always one of my favorites.

In recent years my hands have become shaky and I have been confined to my boatswain's chair, but LeRoy the cabin boy is writing this for me on his typewriter machine.

Hope that your future "Songs of the Sea" will be as august as your August progeny.—Briny Murphy.

• *Thank you. For a long time we wondered if anyone ever bothered to read our "Songs of the Sea." Now, we can be sure our efforts do not go unsung. Our sea chantey editor, an eminent musicologist who twice won the International Grand Prix for uphill folk-dancing, was so pleased by your letter that he ran out and bought himself a brand-new electric banjo to celebrate the occasion.*

According to him, "Song of the Oarsmen" is sung to the same tune as "The Fez on the Barroom Floor," with which you are no doubt familiar. This is the well-known Egyptian ballad which begins with the famous line, "A bunch of the boys were whooping it up on a barnacled old bassoon."

If it weren't for space limitations, we'd be happy to print the music here, but you can find the score in almost any library. The best arrangement is probably the one in "Songs for Balloon Launchings and Six-Day Bicycle Races," by Dr. Homer J. Rockenroll. Good hunting.

By the way, Mac, what's your service number? A quick check of our subscribers' list fails to show a single Briny Murphy among the 650,000 (more or less) names.—Ed.

It Just Goes to Show You

Sir: Consider the following information, then tell me if you can what caused the Bureau's change of heart: For purposes of transferring to the Fleet Reserve I completed seventeen years of service this past August, twelve of them as CPO. As far back as 1943 I requested—and was refused—electronics school and conversion to ETC. Similar requests were refused in 1946, 1947 and 1948—when, seemingly at least, ETs were critical and radiomen were plentiful.

Now it's my understanding from various publications that the radioman rating in recent days has been as critical as that of electronics technician. Yet I finally was ordered to the Electronics Officer's School at Great Lakes in September 1954, completed the course in September 1955, and had my rate changed from RMC to ETC. Then I was assigned to my present duties—a radioman's job if I ever saw one.

I'm grateful for that fine electronics training, of course, but it does seem to me that the Bureau picked a rather odd time to give me ET schooling and conversion.—W. M., ETC, USN.

• *Not really so odd, Chief. You are one of several RMCs who were considered excellent candidates for selection to warrant officer status, and who (on that basis) were ordered to the Officer's Electronics Maintenance course, since this course would prepare them to assume duties as Warrant Electronics Technicians.*

Although the selection board did not pick you for warrant status, the training you completed is equivalent to the present ET conversion course, so your request for change of rating was approved.

As for your assignment to radioman duties, that is a matter to be determined by your commanding officer.—Ed.

Biggest Ships in World War II

Sir: I heard that the Japanese had the world's largest carrier and battleship in World War II. Is this true? —B.B., JO1, USN.

• *The Japanese Navy had a trio of giants in the water during at least a part of World War II that were among the largest ships ever built. They were* Yamato, Musashi *and* Shiwano.

To quote Theodore Roscoe's Submarine: "Yamato, *a 63,000-ton monster . . . and her twin sister* Musashi, *were the world's biggest battlewagons. There were to have been triplet giants, but the third behemoth,* Shinano, *was converted during construction into a 59,000-ton (standard displacement) aircraft carrier."*

Shinano *was commissioned on 18 Nov 1944—and sunk by* USS Archer Fish *(SS 311) on 29 Nov 1944 (just 11 days later) while on her way to a safe port for fitting out.*

Super-battleship Yamato *was bombed to extinction on the morning of 7 Apr 1945 in the East China Sea;* Musashi *capsized under a rain of explosives on 24 Oct 1944 during the Battle for Leyte Gulf.*—Ed.

Higher Reenlistment Bonus

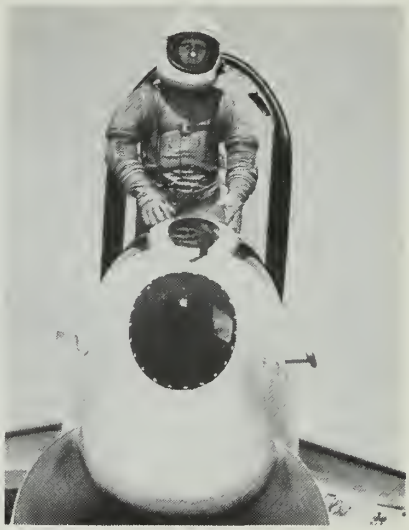
Sir: On 7 Feb 1954, the expiration date of an enlistment for four years, I extended for one year. At the end of that period I extended for one more year. Disbursing at NTC San Diego, Calif., combined the two one-year extensions and made a two-year extension of them. They paid me $40.00 minus taxes, with no travel pay.

I reenlisted for six years on 7 Feb 1956 and received two thirds reenlistment pay. I was told the two one-year extensions constituted one enlistment and the enlistment for six years was my second enlistment.

Is it right that I should have received any pay for the two one-year extensions?—C.P.B., SK3, USN.

• *In accordance with paragraph 044070-2, "NavCompt Manual," extensions can be added to count as reenlistments for the purpose of payment of a reenlistment bonus. The records of the Bureau of Naval Personnel show that you extended for one year on 7 Feb 1954 and again for one year on 7 Feb 1955. This constituted an enlistment of two years for which you were paid $40.00 under section 207, Career Compensation Act of 1949. The payment of $40.00 is proper.*

However, the Comptroller General has stated that a member who reenlists after voluntarily extending his previous enlistment for two succeeding one-year periods under section 207 is entitled to a reenlistment bonus as for a first reenlistment. You should have received a reenlistment bonus computed as a first reenlistment on 7 Feb 1956. —Ed.



SAUCERMAN? — No, a pilot about to take off in F8U-1 Crusader to test new Navy high-altitude pressure suit.

For Travelers into Outer Space

Sir: Could you please give me the answers to these questions about the Navy standard compass?

First: How does it behave in the Arctic and Antarctic?

Second: How would it act in space when leaving the earth's gravitational pull?—J. T., BMG1, USN (Ret).

• 1. *As the standard magnetic compass is moved from the middle latitudes toward either of the poles, it enters an area where it begins to oscillate and become unreliable. When it gets closer the oscillation stops and the needle will come to rest wherever it is set.*

In other words, if the needle is moved from one position to another it will not tend to return to the position it was in before.

2. *Recorded observations have been made on altitude effects on the magnetic compass at heights up to 30,000 feet. These have shown that the curved lines of equal variation found on the earth's surface tend to become parallel lines out in space, similar to the lines*

FUELING FOURSOME — First seaplane tanker, Navy's R3Y-2 Tradewind, to refuel four jets simultaneously, passes gas to F9F-8 Cougars high above Pacific.

of longitude on a chart. This would indicate that the earth is a perfect magnet.

It has also been proved that magnetic force diminishes in proportion to distance from the earth. Thus, in traveling into outer space a point would eventually be reached where magnetic force would finally and completely fade out, making a magnetic compass useless. Some other type of direction indicator would then have to be employed.

Before reaching that point, however, the procedures for correcting a compass in outer space remain the same as they are now. Only one correction for deviation (the angle between the magnetic meridian and the north to south axis of the compass card) would be made, because that is strictly a local condition.

If you're planning to move, be sure to notify us of your change of address.—Ed.

'Hypothetical' Date of Entry

Sir: Our disbursing officer uses what he calls a "hypothetical date" in computing my basic entry date. I don't get it. I know perfectly well the date on which I first enlisted. Nothing hypothetical about it. I believe that such should be figured on a day-to-day basis in relationship to actual service. Will you please explain proper procedure of figuring time for basic pay and clear up a lot of confusion aboard this ship. —R.L.McL, PN1, USN.

• *You are correct in regard to figuring basic pay on a day-to-day basis, but when a man has broken service, then a "hypothetical date," if one wants to call it such, must be established in order to come up with a fixed date on which to figure basic pay.*

In computing service for the purpose of determining basic pay, individuals are credited with full-time (active and inactive) duty during all periods they were enlisted or held a commission in the armed forces or any of the components of the armed forces.

In the event of "lost time" that time is not included in determining cumulative years for basic pay purposes.

If a man has no former service computable for basic pay purposes, his basic pay entry date will be the day his active duty begins. As an example, if a man enlists in the Navy for the first time and reported for active duty on 28 Feb 1956 his basic pay entry date would be 28 Feb 1956.

If he had prior service creditable for basic pay purposes, his basic pay entry date would be a "hypothetical date." This would be established by deducting the total amount of his former service from the date which his current service commenced.

As an example, we'll take the case of an individual who was on active duty from 16 Jan 1940 to 25 Jan 1946. During that period he had eight days' lost time for being AWOL. On 13 Aug 1946 he again signed up for a two-year hitch and remained on active duty until 12 Aug 1948. During that time he had 22 days of lost time due to hospitalization from misconduct. On 25 Sep 1950 he joined the Naval Reserve but remained on inactive duty until his discharge on 11 Aug 1953. He then was not affiliated with the military again until he enlisted in the Navy and went on active duty on 28 Feb 1956.

In order to determine his basic pay you would have to figure out a "hypothetical date." This would be done by compiling all of his former service. That would give him a total of 10 years, nine months and 27 days. These figures include the two years, 10 months, and 17 days in which he was an inactive member of the Naval Reserve, and deductions for the total of 30 days' "lost time."

Deducting his total creditable service, 10-9-27 (years, months and days) from the date he began his current enlistment, 56-2-28 (year, month, day) you come up with the figure of 45-5-1. This would represent the "hypothetical" date of 1 May 1945. That date would be the basic pay entry date on which his pay would be figured. Therefore his basic pay at the time of entering the Navy on 28 Feb 1956 would be based on 10 years' service and on 1 May 1957 he would start drawing pay based on 12 years' service.—Ed.

ECC Assignment Booklets

Sir: There is a difference of interpretation within this command as to what is to be done with the assignment booklet issued with Enlisted Correspondence Courses upon completion of the course. The particular type correspondence course in question is based on a Navy Training Course which must be completed before competing in the service-wide examination for advancement in rating.

Some seem to think that under the new system the assignment booklet is to be returned to the correspondence course center with the texts, others hold that they may be retained by the individual completing the course, as in the past.

It would be greatly appreciated if you could get a clarification on this for us, since the question booklet is a very handy thing to have around, especially when it comes time to study for examinations.—J. L. H., PN1, USN.

• *Enlisted men on active duty enrolled in correspondence courses under the provision of BuPers Inst. 1510.67 of 16 Feb 1956 may retain the assignment booklets when needed for study in preparation for advancement in rating examinations. It is the privilege of the command to decide when the course has been completed and when study material is to be destroyed. The assignment booklets need not be returned to the Correspondence Course Center, but the basic texts (Navy Training Courses) must be.*—Ed.

Shoulder Marks

Sir: With reference to the change-over from the officer's blue raincoat to the new type overcoat, there is a question which comes to my mind concerning the shoulder insignia. The metal insigne prescribed for the raincoat is waterproof. Has the Uniform Board come up with specifications for a weatherproof shoulder mark to be worn with the overcoat?—M. L. McC., LCDR, USN.

• *Don't worry about it. Shoulder marks made in accordance with exist-*

ing specifications have been tested by water immersion and exposure to alternate salt water spray and high intensity artificial sunlight. Except for normal tarnishing of gold, these tests have proved that all components are reasonably weatherproof. Therefore, you should have no trouble with your shoulder marks when wearing them on your overcoat in bad weather.—ED.

Deck Logs

SIR: I have a question on the deck logs. I have searched all available instructions and can't find the answer. What is the proper method to use in numbering the pages of the deck log? —R. E. R., YN1, USN.

• *Search no more, friend. There is no proper way. Requirements for numbering deck log pages were discontinued on 1 Jul 1955. Before this date, log pages were numbered in consecutive order throughout the accumulation of log pages for the calendar year, commencing with the first day's log page of the calendar year, and ending with the final day's log page of the calendar year.*—ED.

Applying for LDO

SIR: In July 1955 I applied for a commission under the LDO program. Since that was the second time I applied, I did not try again in March '56. Am I eligible to apply again under the officer procurement program for Fiscal '57? Can you tell me if I passed the LDO exam I took in 1955?—C.J.S., AD1, USN.

• *Under BuPers Inst. 1120.18C personnel are now authorized to apply for Limited Duty Officer status as many times as they consider themselves qualified. Personnel who have applied twice and were not selected can reapply as many times as they desire as long as they meet the necessary requirements.*

The examinations for LDO selection, which have been revised and are now given annually, have no set passing or failing grade. An individual's outcome is determined by his relative standing among all candidates who took the exam and, as indicated in BuPers Inst. 1120.18C, a cutting score will be established by the Chief of Naval Personnel. All above the established cutting score will be presented to a formal selection board convened by the Secretary of the Navy. Your score would mean nothing to you unless you could compare it with the scores of all other candidates. In order to eliminate any possible misunderstandings of raw scores, it is the policy not to divulge the results of the examinations.—ED.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• USS *Tulagi* (CVE 72) — The second annual reunion is planned for early July 1957, at Coronado, Calif. All former officers may contact Dr. F. A. Holden, Medical Arts Bldg., Baltimore 1, Md.

• USS *McCormick* (DD 223)—All former crew members and officers who are interested in holding a reunion, with time and place to be decided by mutual consent, write to Arthur Mailman, 55 Nichols Street, Gardner, Mass.

• USS *Thuban* (AKA 19)—Former shipmates interested in attending a reunion, with time and place to be decided by mutual consent, contact CDR Joseph L. Hopkins, 270 Broadway, New York 7, N. Y.

• *Underwater Demolition Teams* —A reunion is being planned for all UDT personnel, past and present, at a time and place to be agreed on by mutual consent. For further information you may write to Donald F. Arveson, 403 Valley National Bldg., Tucson, Ariz.

• USS *Abatan* (AW 4) — Crew members and officers interested in holding a reunion on 9 Feb 1957 in New York City, may get in touch with John Shad, 225 Fourth Avenue, New York 3, N. Y.

• USS *Arizona* (BB 39) — Former crew members who are interested in holding a reunion, with time and place to be decided by mutual consent, write to William E. Larsen, 4019 W. 176th Street, Torrance, Calif.

Tropical Uniform

SIR: The recent change to *U. S. Navy Uniform Regulations* concerning the use of tropical uniforms has been most welcome in the tropics. As you know, tropical uniforms are more comfortable and practical. In our area, the wearing of combination caps for officers and CPOs is preferred because these caps are dressier and are more military in appearance. Combination caps, however, are uncomfortable owing to the prevailing humidity. In regard to this cap, would you please inform me on the following: *Uniform Regulations* do not mention eyelets in describing cap covers. Does this imply that they are not authorized? Could the use of eyelets, similar to those on U. S. Marine Corps cap covers, be authorized?

Eyelets provide ventilation and circulate air inside the cap. Together with perforated sweat bands, they result in more comfort and still retain enough warm air when used in cool or temperate climate to be practical.—S.M.G., YNCA, USN.

• *As you state in your letter, the tropical uniform is a very comfortable and practical uniform, and the combination cap is dressier and more military in appearance than the tropical helmet. In fact, the basic reason for the tropical uniform is comfort in warm climates while at the same time retaining as smart a military appearance as possible.*

Eyelets are not prescribed in naval cap covers. Inasmuch as the cap covers permit air to enter, the added comfort received from eyelets is questionable. In addition to the combination cap and the tropical helmet, in the near future the khaki garrison cap will be authorized for wear with the khaki tropical uniform.—ED.

Amount of Retainer Pay

SIR: I requested transfer to the Fleet Reserve upon completion of 19 years and six months' service. At that time my rate was BTI. Since then I have advanced in rate to BTCA.

Will the retainer pay that I receive be for first class or chief, even though it is an acting appointment?—A.B., BTCA, USN.

• *If you hold the rate of BTCA on the date of your transfer to the Fleet Reserve, retainer pay will be based on the rate. There is no difference in the basic pay of CPO (permanent appointment) and CPO (acting appointment) under the Career Compensation Act of 1949.*—ED.

Slide Rules Used in Exams

SIR: NavPers 15828B states that slide rules may be used on examinations for advancement in rating. Does this mean any type of slide rule, such as a Medical Slide Rule?—W. L. J., HM2, USN.

• *No. The slide rule authorized by the "Instructions For The Administration Of Examinations For Advancement To Pay Grades E-4, E-5, E-6, and E-7" (NavPers 15828B) is a conventional instrument used to perform simple multiplications and divisions. Since it is an aid which speeds up routine calculations, it is authorized for use during the service-wide exams. The "Medical Slide Rule" is assumed to be an instrument used to convert grams to grains, etc. Since this device has built into it the conversion factors required to make the computation, it is not a device that performs only simple multiplication and division. In effect it provides information that an individual might be asked on the examination. For this reason it is not authorized for use in the service-wide competitive examinations.*—ED.

Forrestal Facts

SIR: Can you tell me where USS *Forrestal* (CVA 59) was built, when she was commissioned, and whether she is the biggest ship afloat today? —A. J. SD3, USN.

SIR: I have read that USS *Forrestal* is the biggest ship ever built, but I have also read that USS *Saratoga* (CVA 60) is the biggest. Undoubtedly both of them are big, but I wonder if they are the same size.—N. G. S., SN, USN.

• Forrestal-*class carriers are certainly the largest ships afloat today, but* Forrestal *herself is not quite the largest of the class. All ships of the class are listed with a beam of 252 feet, that being the extreme width of the flight deck. While the length for the class is listed by Jane's* Fighting Ships *as 1036 feet,* Forrestal *and* Saratoga *actually measure 1039—while* USS Ranger *(CVA 61) has an over-all length just a couple of inches short of 1046 feet. The builders point out that the increase in length was caused —after* Forrestal *was well underway —by an increase in the angled-deck design which resulted in an extension of the flight deck's after section.*

Full load displacement for the vessels is expected to be in the neighborhood of 76,000 tons.

Both Forrestal *and* Ranger *were built by the Newport News (Va.) Ship Building and Dry Dock Company, while* Saratoga *was built by the New York Naval Shipyard.* Forrestal *was commissioned on 1 Oct 1955.* —ED.

Into Mothballs

SIR: I would like to have any information you can give me about USS *Wilkes-Barre* (CL 103) since 31 Jan 1946.—R. D., Lockport, N. Y.

• *After 31 Jan 1946* Wilkes-Barre *served with the Fleet during training cruises in Guantanamo and on a goodwill cruise to England and Norway. On 9 Oct 1947, she was placed out of commission in reserve at Philadelphia, as part of the Atlantic Reserve Fleet.* —ED.

Officer Promotion

SIR: AlNav 100, back in December 1955, listed my name among those selected for promotion to the rank of lieutenant. A board of medical examiners found me physically qualified for temporary promotion while a supervisory examining board early in 1956 found that I met the professional requirements, by virtue of correspondence courses completed in all required subjects.

Since then I have had no word on my appointment, although several of my contemporaries (many of whom are junior to me on the lineal list) have already received their appointments.

Can you tell me by what method of priority the appointments are being issued and if the date of issue affects an officer's standing on the lineal list? —H. R. G., LTJG, USN.

• *An officer selected for promotion in fiscal 1956 cannot be promoted until (1) a vacancy has occurred for him in the next grade; (2) his professional qualification has been established by the Naval Examining Board; and (3) his physical qualification has been established by a formal Board of Medical Examiners.*

While officers are promoted as they qualify, their new lineal positions in the higher grade are the same as their lineal order on the promotion list announcing their selection. Therefore, an officer who is slow to qualify does not lose any precedence.

In your own case, a vacancy occurred for you on 1 Sep 1955, but you were not deemed qualified until 23 Jul 1956. Since then, of course, you have been notified of your appointment to lieutenant.—ED.

In Reserve, In Commission

SIR: In the August 1956 issue of ALL HANDS, you stated that USS *Antietam* (CVS 36) spent a short period in mothballs in early 1952. I was attached to *Antietam* in 1952, and I didn't notice she was in mothballs at that time. How about it?—W. J. J., LT(DC), USN.

• *You are correct.* Antietam *was in commission, in reserve (Res/IC), from 15 May 1952 until 15 Jan 1954. She has not been placed out of commission since early 1951 when she was recommissioned. Our writer made a very liberal interpretation of the term in commission, in reserve.*—ED.

National Defense Service Medal

SIR: I would like to settle an argument that has been going on for some time over many cups of coffee. According to BuPers Inst. 1650.3 members of the armed forces who served during any period from 27 Jun 1950 to a terminal date to be announced later are entitled to wear the National Defense Service Medal. Has the terminal date been announced yet, or does anyone coming on active duty rate the National Defense Service Medal?—F. D. D., PN3, USN.

• *Sit back and enjoy your coffee, all has been decided. The cutoff date for the National Defense Service Medal was 27 Jul 1954. Anyone who entered on active duty after that date is ineligible to receive this medal.*—ED.

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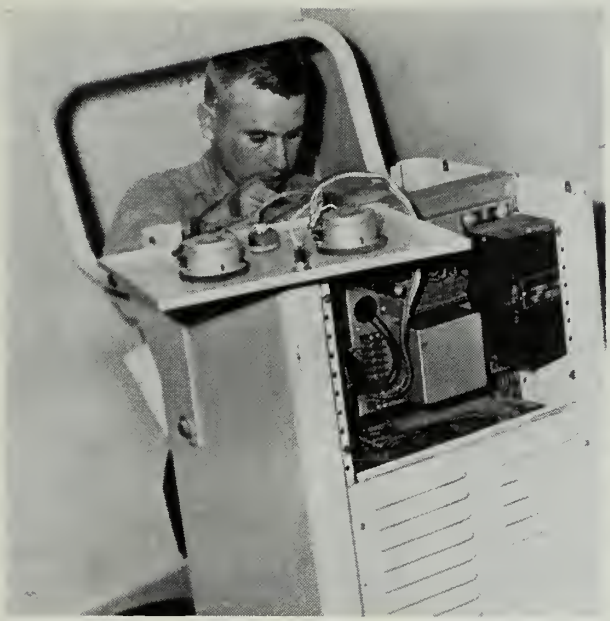
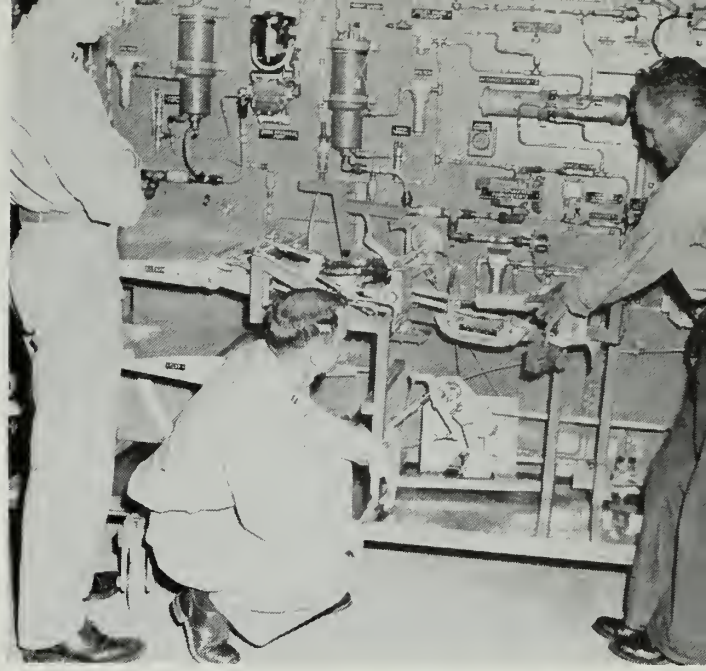




Looking for Trouble

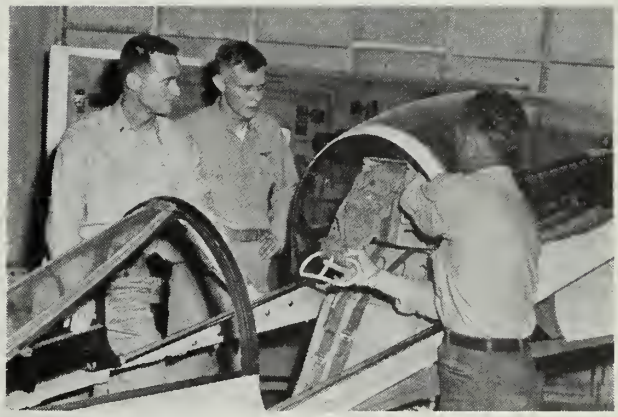
LEARNING TO REPAIR sections of a fuselage and overhauling the various systems of an airplane before actually seeing it sounds like something out of science fiction. However, fighter pilots and crewmen of First Marine Aircraft Wing are doing just this by way of instructions from white hats at NAS Atsugi, Japan.

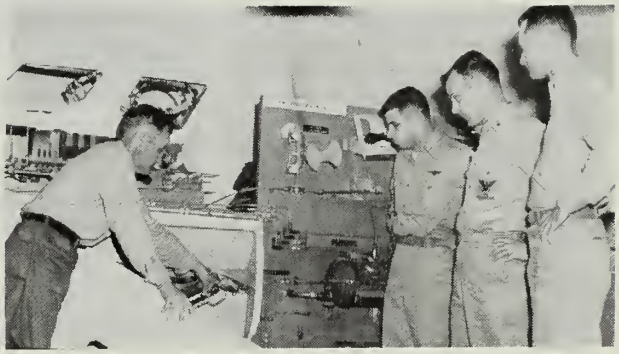
The airmen are being squared away on the FJ-4 *Fury* which will soon replace their FJ-2 models. This is being accomplished by a Navy Maintenance Training Unit which brings to the field the latest maintenance techniques. The unit demonstrates the operation of various systems of the plane by the use of mock-ups, cut-aways, panels, slides and charts. By sending training units like these to the Fleet the Navy saves time and money.

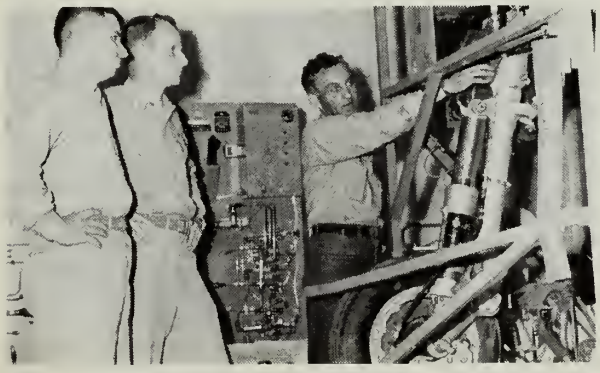
Both pilots and aircrewmen are learning the FJ-4 from the inside out, and when the *Furies* roar into Atsugi the Marines will be ready and waiting for them.

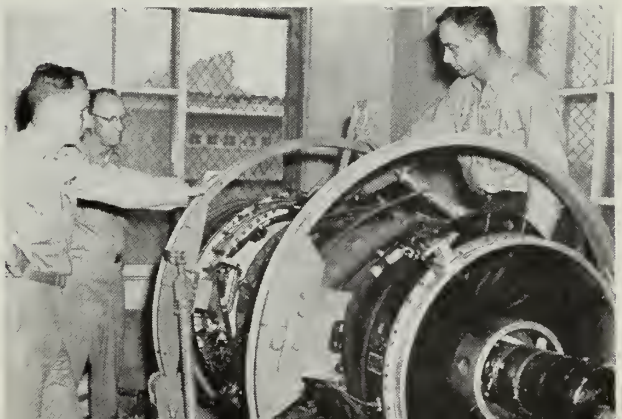
Top Left: C.C. Ulsh, AE1, USN, repairs rectifier. *Top Right:* Marines get the word on the operation of control panel from J. A. Jones, AM1, USN. *Top Center:* Mock-up explains FJ-4 ejection seat. *Lower Center:* Cut away shows brake system. *Lower Right:* L. L. Casper, AD1, USN, explains jet engine to Leathernecks. *Lower Left:* Navy instructor discusses landing gear of *Fury*.

—Henry D. Morrow Joc, USN









The Search for Bergy Bits an

Bergy bits and *growlers, ropaki* and *sikussak* are terms which cut no ice with most Navymen—but they're old friends to Navy aerographer's mates who have pulled duty in the far north as aerial ice observers, or completed the Class C Ice Observers course at Lakehurst, and to the men who have sailed the icebreakers and supply ships which support U. S. Military installations along the frigid Arctic rim of the North American Continent.

The first two terms mentioned here denote fragments of ice roughly the size of a small cottage and a grand piano, respectively. *Ropaki* are pinnacles or slabs of ice which have been forced by pressure to stand on edge, and *sikussak* is very old sea ice trapped in fiords. They are just four members of a large group of words and symbols used to tell anyone who's interested "what's what" in the ice-cluttered waters through which shipping must pass in order to supply the settlements and military installations from Northern Alaska to Newfoundland and Greenland.

Not so long ago, a skipper taking his ship into extreme northern waters could be expected to know little about the conditions encountered except that "ice is where you find it." The wise skipper steamed with great care and kept ice lookouts posted at his masthead; other ships perhaps had a helicopter on board for spotting a likely course through the ice, or an icebreaker to lead the way.

Nowadays, the skipper taking a Navy or an MSTS ship into the seas around Alaska, Canada's Northwest Territories or Newfoundland, does not go in "blind"—he has a complete weather- and ice-forecasting service to tell him what to expect, plus aerial ice observers to help him find his way through the ice fields.

Although Navymen have been conducting operations in the Arctic for more than a century, only in recent years have expanded military operations in the Far North required full-time attention to the problems of employing fighting ships and men in arctic areas. Small-scale operations, mostly in connection with weather and sealing stations, were carried forward from World War II until 1951. Then Operation Bluejay—the establishment of Thule Air Force Base, Greenland, — got underway, forming a high point in cold weather operation.

While Bluejay was still in the planning stage, however, the Navy began work in earnest on plans for minimizing ice damage to arctic shipping. Conferences between representatives of the Office of the Chief of Naval Operations, the U. S. Navy Hydrographic Office and the Military Sea Transportation Service laid the groundwork for establishment of the Navy's first Aerial Ice Reconnaissance Units.

Civilian representatives of the Hydrographic Office (or "Hydro") began informal ice reconnaissance flights in 1950. In addition to supporting Bluejay in 1951, Hydro's observers furnished extensive support to ships engaged in Operation Sunac (Support of North Atlantic Construction) in 1952 and to similar shipping during the 1953 arctic shipping season. In the 1951 operation, the Air Force's 6th Air Rescue Squadron took a hand in the ice reconnaissance flights; during Operation Sunac naval aircraft from the Atlantic Fleet carried both Fleet and Hydrographic Office observers on reconnaissance flights.

The first-hand knowledge of ice conditions and movement gained in these operations insured successful delivery of thousand of tons of supplies during the two 45-to-60 day shipping seasons. During this period, too, techniques of aerial ice observing and symbols for presenting ice data were also developed.

Late in 1953 the first Navy enlisted men were assigned as aerial ice observers. The 14 aerographer's mates selected for the program were ordered to the Hydrographic Office in Suitland, Md., for eight weeks of intensive training before being assigned to the field in March 1954.

Men at Hydro who had learned much of their ice observing in the hard school of experience were the teachers of such subjects as Physical Geography of the Arctic, History of Exploration, Ice Codes and Symbols, Distribution of Sea Ice, Ice Forecasting, Ice Seamanship, Field Work Procedures, Military Aspects of Arctic Operations, Aerial Ice Observing Techniques, and Reporting Procedures.

Also included in the course was a training flight actually to observe ice conditions in the Labrador Sea.

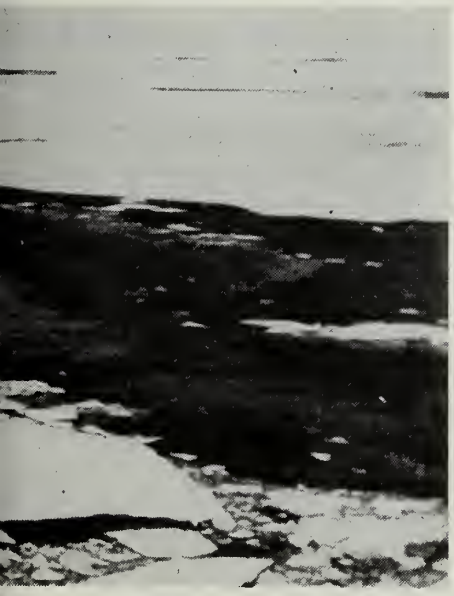
While this first group of AGs was on duty in the Arctic during the 1954 shipping season, volunteers were requested for the 1955 season and in January of that year 19 aerographer's mates reported to Hydro for training. Upon completion of the course in March 1955, these observers were formed into two reconnaissance units and assigned to Fleet Weather Centrals at Argentia, Newfoundland, and Kodiak, Alaska.

With the primary mission of re-

Growlers

porting ice data to designated commanders in support of ships engaged in Operation Sunec, a "recco" unit was established at Argentia and observers were detached to stations in the field. While the Argentia headquarters handled administrative and planning details and coordinated the disposition of observers, the observers themselves insured that the unit's mission was performed with outstanding efficiency.

Stationed at Goose Air Force Base, Labrador; Frobisher Bay, Northwest Territories; and Thule Air Force Base, Greenland; with occasional operation from Air Force bases at Sondrestrom and Narasarssuak, Greenland, the observers had their job worked down to a definite pattern by the first of June.



FLYING HIGH over Arctic, Navy ice observers gather information on frozen waters below. Info will assist passage of ships headed for ice-bound bases.

Each detachment had been assigned a specific area of responsibility to conduct aerial ice reconnaissance flights. During these flights, ice data and ice information was plotted on chart form and, in turn, ice messages were prepared and distributed to appropriate field commands and to the U. S. Navy Hydrographic Office for ice forecasting purposes. Frequently, the ice observers provide tactical ice summary information directly to a ship's skipper during ice reconnaissance flights.

During the 1954-55 season observers operating with the unit at Argentia spent nearly five thousand hours in flight, supporting Sunec.

On the Alaskan side, four aerographer's mates were assigned to Fleet Weather Central, Kodiak, for duty in 1954. In 1955, for the "Mona Lisa" (resupply of U. S. Bases) and "Project 572" (DEW Line supply) operations, five graduates of Hydro's ice course were assigned to Kodiak, and the operation of this aerial ice reconnaissance unit is fairly typical of such operations on both coasts.

Upon completing their studies at Hydro the AGs reported to Kodiak in April to begin observations. At first, two flights a week were made over the ice-bound Bering Sea and along the southern edge of the ice pack. As the spring break-up progressed, longer flights were made into the pack proper and occasionally along the northern coast of Alaska.

On 1 Jul 1955, a single ice observer went from Kodiak to Point Barrow where (with the help of two UF-1Gs from FASRon 114) he provided close support to shipping in the area. As the ice continued to recede, three additional observers and two civilian forecasters set up shop at Ladd Air Force Base, Fairbanks, receiving support from Kodiak's VP-2 squadron.

By late July both detachments in Alaska were flying daily, covering the coastal areas around Alaska and the north Canadian coast. At the completion of each day's flight, ice data and the charts marked by the observer while in the air were turned over to Hydro's forecaster for transmission by radio and facsimile radiophoto. These transmissions, covering both observed and forecast conditions, were available to ships in the area and to the long-range forecasters at Hydro's home office. This routine continued until the summer resupply operations were completed.

During the period, the five observers assigned to Kodiak racked up nearly 1400 hours of flying time.

And don't confuse "racked up" with "racked out." While the men assigned to ice observation duties have a "slack" season, the varied tasks required keep them pretty busy during an 18-month tour of duty. With the coming of the northern spring, observers keep an eye on the ice breakup, continuously plotting the southern limits of the ice pack and any changes within the pack itself; keeping track of such features as cracks and leads, topographical features and age of the ice, snow cover and any other information which may be of interest to Hydro's ice forecasters and to ships planning to enter the area.

Before taking off on a reconnaissance flight, the duty observer receives a briefing from the man who made the last flight, checks the weather and surface charts for information on probable movement of the ice due to winds and currents, and gathers his plot gear and charts.

As the observers at Argentia have

ICE OBSERVATIONS from patrol are recorded on charts with special signs and symbols for types of formations.

found out, "ice reconnaissance flights, by the very nature of their mission, are tedious and demand exacting performance from both the observer and the plane crew. An average flight lasts about seven hours, but it is not unusual for flights to continue for as long as 11 or 12 hours—frequently under conditions which make observing almost impossible. Area coverage for each flight ranges from 75,000 square miles to 150,000 square miles, depending upon the amount of data required."

P2V-type aircraft, fitted with a plastic glass nose, are most popular for reconnaissance flights, since the specially-modified bow provides the observer with an excellent platform for observing, as well as ample room for charts and other material. The range and adaptability of P2V types are also excellent for ice reconnaissance. Other planes which have been used by Navy observers include the R4D and UFs. Canadian ice reconnaissance crews operating nearer the "center" of the continental land mass at Resolute Bay, N. W. T., use *Lancaster*-type planes for their flights.

During the "big" summer season and on into the fall, long-range flights continue, while shorter range tactical flights offer close support to ships moving into and out of the area. In addition to observing the ice, and transmitting any tactical information required by shipping present in the area, the observer continues his plots and charts and writes messages for transmisson to the Hydrographic Office, Fleet Weather Centrals and other interested commands. These messages give all information concerning the disposition of ice, its concentration and any changes occurring since the last flight.

In the fall, after the ships are clear of the heavier ice concentrations, tactical support flights decrease sharply, but longer-range flights continue, with the observer tracking the ice pack southward and observing and recording the formation of new ice. Throughout the winter—the "minimum operating period"—observers have fewer duties, but they still keep a sharp eye on the continuing freeze-up and maintain an accurate plot of the southern edge of the ice.

This slack period is also used to provide the observers with leave periods, and to conduct sessions in new ice reporting techniques, prepare special reports and papers on various aspects of ice observing, and to conduct discussions on recommendations for improving the service. Observers may also be assigned to special projects in which ice data is a consideration.

Methods used and data collected during 1953 differed somewhat from those stressed by ice reconnaissance teams in 1954, 1955 and 1956, yet the three-fold mission of ice reconnaissance remains the same:

- To assist in furnishing a comprehensive summary of existing ice

ICE IS WHERE YOU FIND IT is no longer the watchword of Northern skippers. Now ice recon units furnish ships like *USS Atka* (AGB 3) with advanced word.

conditions to the Hydrographic Office prior to the operating season. In turn, this information is used by the Hydrographic Office with other related oceanographic data and meteorological data to formulate the Long-Range Ice Outlook which is issued annually.

• To furnish direct (or tactical) support to icebreakers or convoys transiting ice while such ships are seeking out the best approaches or transit routes through the ice.

• To furnish quick ice information to be used as a basis for ice forecasting (a service which Navy's Hydro has been providing to arctic shipping since 1952 and which is becoming more important each year).

The changes in technique, equipment used and data collected reflect the Navy's expanding knowledge of arctic ice and weather, as well as increasing know-how of successful operation in the extreme conditions prevailing in such little-traveled areas as the Chuckchee and Beaufort Seas, Baffin Bay and Foxe Basin. Advancing knowledge and expanding requirements of arctic operation are reflected, too, in the Ice Observer Course.

The Class C Ice Observer Course taught by the Naval Air Technical Training Unit at NAS Lakehurst, N. J., is open to Navymen who have attained aerographer's mate third class or above, and who have 18 months of obligated service from the date of entry into school. Trainees must be able to recognize and record types and characteristics of land and sea ice; acquire a knowledge of and the ability to use ice terminology, symbols and codes; be able to interpret and prepare ice distribution charts and ice messages and reports; become familiar with the geography of the Arctic and Antarctic regions; and acquire a basic knowledge of the behavior and distribution of land and sea ice and the meteorological and oceanographic factors affecting it.

The curriculum at the school is broken into three parts:

• *Ice Observations.* This phase includes arctic observation techniques and equipment, military operations, ice seamanship, survival, ice terminology and identification, sea ice, land ice, and oceanographic data.

• *Observational Records and Reports.* This portion of the course surveys the methods for recording and distributing ice data, and includes ice distribution charts, messages and reports, and track charts.

NAVY 'ICE MAN' briefs crew of P2V *Neptune* on the frozen area to be checked before start of ice patrol flight from NAS Argentia, Newfoundland.

• *Distribution of Sea Ice.* This phase covers both general and regional ice distribution, the behavior of sea ice, and the physical geography of both the Arctic and Antarctic.

Aerographer's mates may submit a routine request for the ice observer's school, but must pass a stiff "flight physical" before being accepted for the intensive five-week course. AGs who complete the schooling will be assigned to either the reconnaissance unit at Argentia (currently allowed 18 men) or the one at Kodiak (allowed eight men), and they will find the work exacting, the hours long.

The pay (with "flight skins") is good; the liberty, unless you're a brownbagger or a sportsman, is pretty much limited to the movies, clubs and other diversions common to military stations—a good chance to save money.

But perhaps even more important, the men who become ice observers are aware that they have joined a select group of Navymen—they work with the assurance that the jobs they do daily are contributing knowledge of lasting value to both the Navy and the nation.

—Barney Baugh, JO1, USN

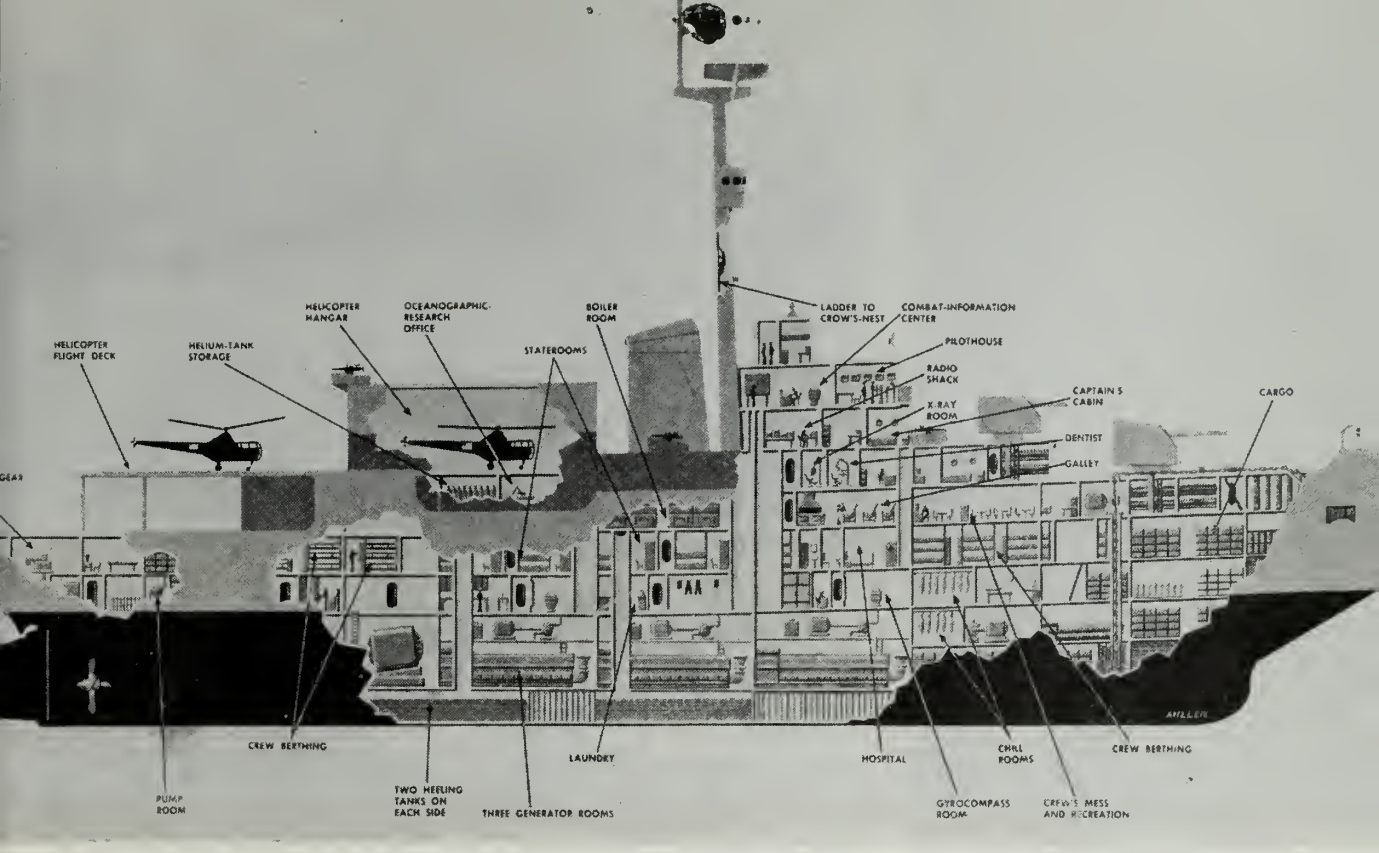
COMPARING NOTES — Ice reconnaissance teams check latest charts on ice conditions and pass the word on their observations to complete the picture.

Ice 'Bound' Animals

THE ANIMAL KINGDOM has its nautical minded members who like to cruise where the going is rough in the frozen waters of polar regions. To Navymen, sailing in these icy seas or flying over the area on ice recon missions, these animals make a strange and interesting break in otherwise routine observations of ice, weather, and water.

Here is a photographic "zoo" of frosty critters captured by alert Navy photogs as their ship made passage through arctic or antarctic waters.

Top Right: walruses riding an ice floe seem as surprised at the passing of USS *Burton Island* (AGB 1) as the Navymen are in seeing this strange sight. *Top Left:* penguin tries to stare down Navy photog while guarding baby in rock nest. *Left:* Weddell seal is bored with visit of sailors interrupting her sunbathing on ice at Bay of Whales. *Lower Left:* friendliest of sea critters is the porpoise who becomes quite chummy with Navymen. *Lower Right:* polar bears swimming far from land are often encountered by ships in Arctic.



Ice Bounding Ship

ICEBREAKERS, the blocking backs for Navy ships in frozen seas, crash the ice barriers for ships carrying the ball on polar missions. Latest to join the fleet of salty ice crushers was USS *Glacier* (AGB 4). She has tested her sturdy hull and bag of tricks against the frozen might of Antarctica, helping to clear the way for Operation Deepfreeze.

Top: Diagram shows interior of the latest in AGBs. *Right:* USS *Glacier* heads to sea in smooth water. *Below:* Today's icebreakers use helicopters to scout best spot to tackle the ice for a break through.

THROUGH CENTER—*USS Atka* (AGB 3) crashes through ice concentration (left) runn

U.S. Navy Helps Stock

BEANS, BACON, BULK OIL, building materials——more than 30,000 measurement tons and 10,000,000 gallons of these and other supplies have been delivered to the western sector of America's Distant Early Warning radar network, despite the hazards of ice and weather and the extremely short Arctic shipping season.

This gigantic job of resupplying DEW Line's western area for another year was accomplished by the Navy's Military Sea Transportation Service and some 1650 specialists of the Army's Transportation Corps—with a lot of cooperation between "the governments of the United States and Canada, between the Navy, Army, Air Force and Coast Guard, between private business and the military, and between various elements of MSTS and the Merchant Marine."

Ice, snow, sleet, fog and gale-force winds were among the major hazards faced by the 56-ship Navy task group in delivering supplies to a sector of DEW Line which extends for nearly 2000 miles across the barren arctic tundra.

Months of extensive preparation preceded the departure of the task group. Beginning in the early spring, both Navy and commercial shipyards were put to work sheathing and adding internal strengthening to the hulls of cargo ships.

Nearly all ships were fitted with extra-strong alloy propellers designed to resist the tough Arctic ice. Personnel were issued heavy arctic clothing and stores and equipment were taken aboard.

Late in July the ships left West Coast ports in several increments and formed into a single convoy off the west coast of Alaska. Under over-all command of RADM George C. Towner, USN, in USS *Eldorado* (AGC 11), the resupply group then began the most difficult part of the operation: waiting for favorable leads to open in the ice, waiting for icebreakers to work stranded ships loose, waiting for the weather to break so off-loading could proceed, and finally, waiting for a chance to break through the ice pack at Point Barrow.

Ice—as always—was the most serious hazard for ships in the area. Melting of the single-season "winter" ice allows for narrow leads in the Arctic Ocean and in Canada's winding waterways during the short summer "shipping season." The pack ice recedes during August and September just far enough for shallow draft ships to forge around the northwest tip of Alaska and into Canada's northern waterways. At any time, however, a sudden change of wind can compress large masses of solid pack ice nearby, blocking the route. Usable openings in the ice ahead of the convoy had to be spotted and transited before a shift in wind blew them shut again.

DEW Line's western resupply area was divided into five operating zones extending from Cape Lisburne on the West Coast of Alaska eastward to Shepherd Bay, 200 miles north of Hudson Bay.

A separate task unit, carrying its own landing craft, special cargo handling equipment and personnel, and guided by an icebreaker, helicopters and aerial ice observers,

rference for cargo ships and tankers making passage to carry supplies to DEW Line.

ICE WATCH—Attired in Arctic gear lookout aboard *USS Eldorado* (AGC 11) watches for danger in overcast.

DEW Line's 'Deepfreeze'

headed into each of the areas, while flagship *Eldorado* remained at anchor in the Point Barrow area to serve as a command and communications center for relaying information and coordinating ship movements.

To reach an objective a group of ships and their icebreaker escort frequently were committed to a zig-zag course.

Sometimes it was necessary to steam miles out of the way to find a favorable lead, only to be blocked at its end for hours or days by solid concentrations of ice.

The off-loading sites for which the five supply groups were headed are monotonously the same—flat, spongy, treeless tundra which seldom rises more than a few feet above the water level. The Arctic's summer sky often grays in above the dull half-melted snow, graduating into a barely definable haze.

Fog drifts in and out regularly, while periodic snow and sleet storms and cutting winds add to the supply task. Multitudes of mosquitoes are a constant plague to the cargo-handling personnel, and even the warmly-dressed Eskimos are annoyed by the millions of insects which inhabit the marshy tundra.

Time was of paramount importance, so the task units which had to steam the longest distance were the first to leave the parent convoy. As each unit arrived at the DEW Line sites, off-loading commenced immediately, and continued on a 24-hour-a-day basis until the last boxes and barrels were ashore.

Supplies consisted mostly of general cargo, construction material, electronic equipment and petroleum products either in bulk or in drums. Bulk petroleum was discharged by offshore pipeline from tankers and LSTs.

Owing to the absence of normal berthing facilities, off-loading was largely amphibious, while none of the cargo ships going east of Point Barrow drew more than 16 feet of water. Ships of deeper draft have trouble, since furrowing action of the ice causes water depth to vary from year to year. To top everything, in many places dirt inclines had to be bulldozed up to the bow ramps of landing ships in order to facilitate off-loading.

Involved in the MSTS-led supply operation were commissioned Navy

POWERFUL PROPELLERS of Navy icebreaker, *USS Staten Island* (AGB5) open a lead in ice for surveying ship *USS Requisite* (AGB 18) to follow through.

OFF-LOADING was largely amphibious with LSDs like *USS Thomaston* (LSD 28) furnishing the landing craft.

ships; U. S. naval ships assigned to MSTS and manned by civil service crews; and ships of the Maritime Administration being operated by commercial shipping agents for the Navy and manned by members of the merchant marine.

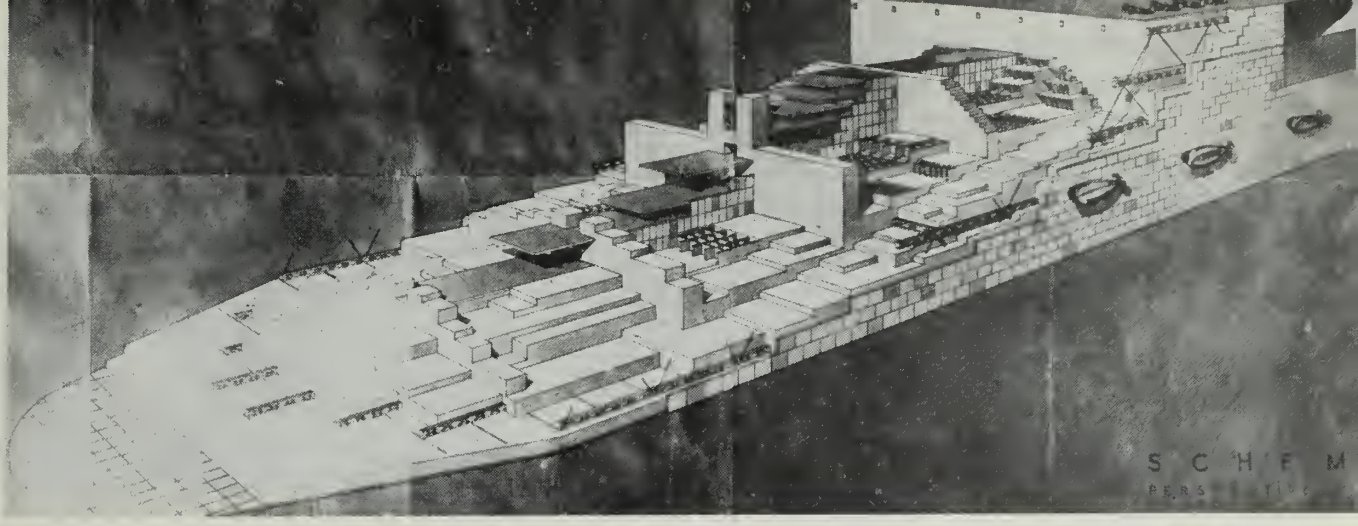
Navy commissioned craft included LSTs and LSDs carrying landing craft for use in off-loading supplies at the DEW Line sites. Most of the cargo ships and tankers were either MSTS or Maritime Administration ships, while both Navy and Coast Guard 'breakers were employed to run interference through the ice.

Ship casualties during the hazardous operation were mostly of a minor nature, with the icebreaker *Burton Island* (AGB 1) shearing off two of her propeller blades while backing out of an ice floe, and approximately 40 other ships sustaining damage ranging from holes in the hull and ruptured fuel tanks to rudder and propeller damage.

MSTS, which is the ocean shipping agency for the Department of Defense, was assigned the task of resupplying DEW Line and other Arctic stations because ships offer the best—and cheapest—means of lifting large quantities of cargo and petroleum in a short period.

In addition to resupplying the DEW Line during 1956, MSTS carried out three other Arctic sealift projects: *Sunec*, the resupply of Air Force bases and other outposts in northeast Canada, Labrador and Greenland; *Mona Lisa*, the resupply of U. S. bases on the west coast of Alaska; and the resupply of Department of Interior sealing stations in the Pribilof Islands off the southwest coast of Alaska.

ON ICE—*USS Atka* rests on ice pack while planting automatic weather station to keep posted on changes.



The Tale of Habbakuk, the Ice Cube Carrier of WW II

WARS CAN ALWAYS be counted on to produce a spate of seemingly far-fetched ideas for alleviating shortages and otherwise helping to promote a nation's war efforts, but few of these ideas have equalled the Allies' World War II "Project Habbakuk" in sheer something or other.

"Habbakuk" was a plan for building—of ice—a 2,000,000-ton aircraft carrier, the ship being visualized as an invulnerable floating air base to combat enemy submarines and to afford air cover for landings on the European coast. Far-fetched as the idea seems, the combined Chiefs of Staff considered the plan feasible enough for the American, British and Canadian governments to carry the project along to the model building stage before technical headaches and easing of the submarine menace led to the project's being dropped. (The plan had originated with the British in September 1942, and was dropped in December 1943.)

Original plans called for the gigantic floating icebox to be 2000 feet long, 300 feet wide and 200 feet deep. Propelled by electric motors attached to an outer skin, the iceberg carrier was expected to make at least a few knots. Its only armament would have been batteries of antiaircraft guns, while the cost was estimated at some $70,000,000. Her chief advantage was a predicted ability to withstand torpedo attack, it being estimated that a "tin fish" exploding against the icy hull would dig only a three-foot crater.

Designed for the cold waters of the North Atlantic, the carrier was to have been provided with self-contained refrigeration machinery to keep the hull from melting should warm water duty become necessary. The refrigeration engines, installed in a central hold, were to circulate cold air through sheet iron pipes placed within the insulating skin.

Engineers working on the project realized that ordinary ice was too brittle, so they invented a substance called "pykrete," which was nothing more than ice reinforced with wood pulp. From four to fourteen per cent of wood pulp was mixed with water, turning the resulting ice into what was called a tough plastic solid, capable of being cut and worked like wood. In addition, pykrete melted more slowly than plain ice, an ordinary small-arms bullet would bounce off the frozen mixture, and a carrier hull of the substance was estimated as being capable of resisting waves 1000 feet long and 50 feet high.

In the winter of 1943 a 1000-ton model, 60 feet long, 30 feet wide and 20 feet deep, was built at Patricia Lake, Jasper, Canada. Plans for the iceberg ship were then deep-sixed (or else stowed away in some designer's deepfreeze indefinitely).

Of more recent vintage—and perhaps much too prosaic to be mentioned in the same breath with Project Habbakuk—is another project involving floating ice, but it's called an ice island rather than an iceberg ship, and the cold stuff is a natural product of the Far North.

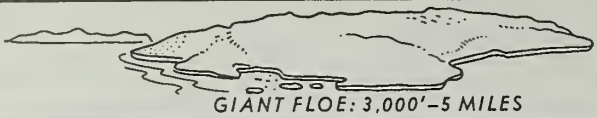
This is T-3, or Fletcher's Ice Island, a huge hunk of floating ice some 200-250 miles from the North Pole. T-3 is the site of the Air Force's northernmost weather and Arctic research data station. Abandoned for a time when the island (bereft of the motors which would have propelled Habbakuk) floated too close to an existing, more stable radar installation in 1954, the island has since been reoccupied by a team of Air Force researchers.

Currently, scientists of the Oceanographic Committee for the International Geophysical Year are also using Fletcher's Island as a base.

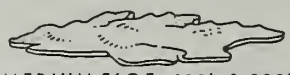
COOL MODEL — Sixty-foot model of *Habbakuk* was built in Canada during early WW II. Workmen lay refrigeration pipes over first layer of ice blocks.

COLD FA

TYPE



GIANT FLOE: 3,000'–5 MILES

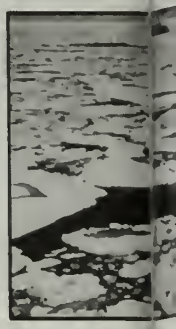


MEDIUM FLOE: 600'–3,000'

POLAR ICE (with Puddles). This ice is the thickest and heaviest farm af sea ice and is mare thon one year old. Puddles are depressions in ice filled with melt water.

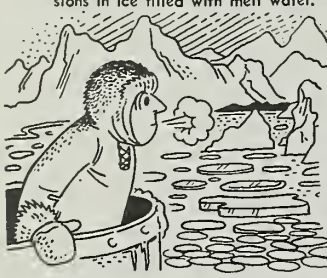
FLAT PUDDLED WINTER ICE. Developed in one winter ar less, this ice shows o level surface marked by puddles af melt water.

CONSOLIDATED ICE, area containing the heavier farms af palar ice, is entirely devaid of apen patches af sea water.

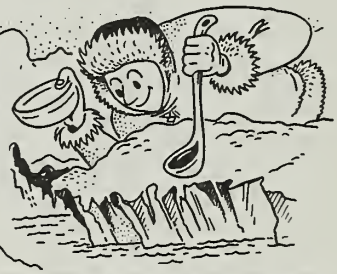


CLOSE ICE, like th tenths to ten-tenths

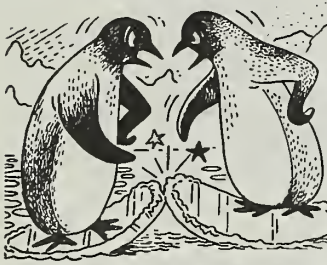
ICE IN THE SEA



Ice in the sea consists, far the mast part, af either sea ice formed by the freezing af top layers af the acean, or icebergs originating from glaciers or continental ice sheets. Sea ice accounts far probably 95 percent af the area af ice encountered, but bergs are important because of the manner in which they drift from their point of origin, canstituting o navigatian hazard.



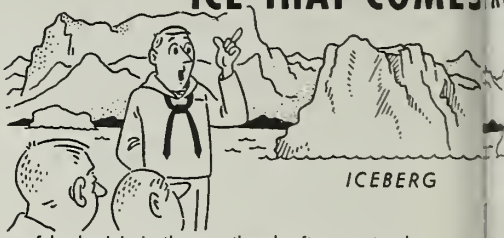
A certain amaunt af ice encountered at sea originates in rivers ar estuaries as fresh water ice; however, as it is already in a state af deteriorotion by the time it reaches the apen sea, its importance is local. The first sign that the sea surface is freezing is an aily apaque appearance af the water. This oppeorance is caused by the formotian af spicules, minute ice needles, and thin plates af ice known as frazil crystals, which develop into thick soupy slush.



Except in wind-sheltered areas, the slush, os it thickens, breaks up into seporate masses, frequently in a chorocteristic poncake farm. The raised edges and raunded shapes result fram callisians of the cakes. With cantinuation of law temperatures the cakes freeze inta a cantinuous sheet. Ice moy grow ta a thickness af faur ar five inches in the first 48 hours, after which grawth becames pragressively slawer. Sea ice seldam becomes mare than five to seven feet thick the first winter.

As stresses ore relieved, lang cracks develop which permit movement of segments within the pack. With the shifting of the ice, crowding may couse the ice to pile up inta pressure ridges and hummocks. Rafting (averriding of one piece anta onather) is the most camman effect of pressure. In spring or summer os snaw or the surface af the ice melts, the ice becomes covered with water. Continued thawing of the ice develops haneycomb passages and holes inta which the surface woter drains.

ICE THAT COMES



Ice af lond origin in the sea, though aften spectacular, is af minar impartance in arctic aperations except in localized areas. Icebergs are large masses af ice detached from the frants af glaciers, fram glacier ice

ICE

Icebergs are products af the land, and nat af the sea. Arctic bergs originate mainly in the glaciers af Greenland, which has 90 percent af the land ice of the narth palar regian.

At times an iceberg will appear dark in cantrast with the sky ar with ather bergs in the direct sunlight, ond this phenomenon has aften led mariners to repart islands where nane exist.

It is often erroneously assumed that a berg with one-eighth abave water and seven-eighths submerged shaulde be flooting with a draft seven times its height above water; but these ratias hald gaad anly far mass, and nat far shape.

BLOCKS ond BRASH are fragments af sea ice, the blacks being pieces measuring fram 6 ta 30 feet across, while brosh measures less than six feet across.

HUMMOCKED ICE, with maunds ar hillacks like these, is a type of pressure ice similar to rafted ice, but requiring a gaad bit less pressure in farmation.

UNWEATHERED PRESSURE RIDGE. Pressure ridges may be several miles lang and up to one hundred feet high.

SHELF ICE is a thick surfoce, firmly attac

S ON ICE

F ICE

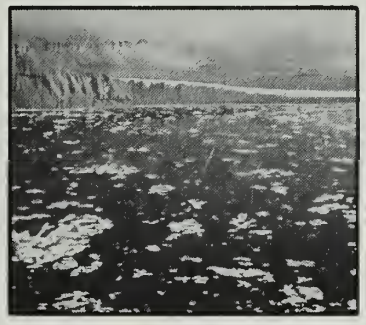
SMALL FLOE: 30'–600'

BLOCK: 6'–30'

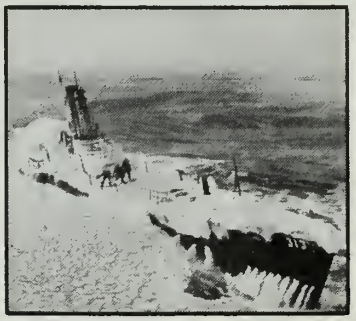
BRASH: 6'

ove, covers from eight- given sea-water area.

RAFTED ICE, a type of pressure ice formed by one cake overriding another, has well-defined contours.



SCATTERED ICE covers from one-tenth to one-half of the sea surface and is regularly distributed over the entire water area.



PANCAKE ICE is young, rimmed, circular in shape, with pieces measuring one to six feet in diameter. Rotary grinding causes peculiar shape of pieces.

ROM THE LAND

BERGY BIT GROWLER

ues, or from the shelf ice of the Antarctic. Smaller es, termed growlers and bergy bits, originate, like s, from glaciers, or are formed from the distintegra- of icebergs and other masses of land-formed ice.

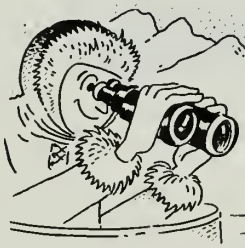
RGS

the fog is dense but is shining the first ance of a berg is in n of a luminous white If the sun is not it is a dark, somber ith a narrow streak of t the water line.

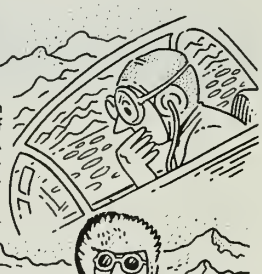
Bergs are irregular in form and take many varied shapes. Most common are the irregular dome-shaped bergs, produced by glaciers that have plowed across the uneven foreland on their way to tidewater.

Measurements on Arctic bergs show that the draft is seldom more than five times the exposed height for the blackest bergs, and may be as low as one or two times the height for the pinnacled and irregular types.

ICE OBSERVATIONS

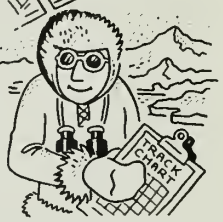


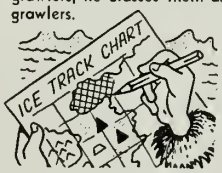
Ice observations are made from abaard ship, from land stations, and from aircraft, with each type of observation offering specified information. A comprehensive description of ice conditions requires a combination of these three types of observations.



The number of bergs, bergy bits, and growlers can be determined readily for a particular area. If the observer has difficulty deciding whether a number of small ice fragments are blocks or growlers, he classes them as growlers.

Far part of his equipment, an observer carries a clipboard to which he can attach the track chart, a pair of light-weight binoculars and a pair of dark glasses.

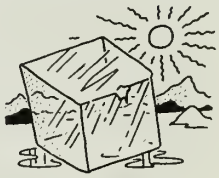




Observers record the location and extent of hard ice, since this type of ice can render a ship's transit quite difficult. Estimates of the percentage of each age are made, that is, 70% winter 30% polar.

Ice thickness can be measured by shipboard observers using augers or saws, or estimated, as ice is turned an edge by ship's bow. Aerial observers should not try to estimate thickness.

Whenever possible it is important to distinguish older, hard ice from the softer, crumbly winter ice. Often, this type of ice is found fused in fields of winter ice, appearing as a pale blue island in a field of light-green or gray-blue ice.



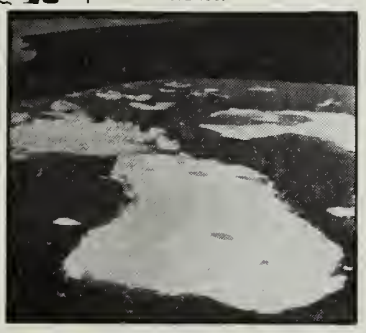
Sea ice that is less than one year old (winter ice), which is somewhat salty, melts more readily than older, less salty floes.

It is important to note the presence, size and orientation of hummocks and ridges. The cores of hummocks frequently are composed of hard ice.

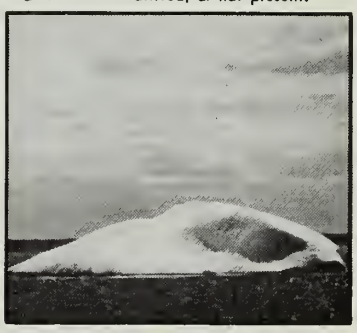
The depth of the snow is estimated or measured directly by shipboard and shore-based observers. Aerial observers simply categorize the snow as continuous, drifted, or not present.

formation with a level to land but extending ard.

FLAT ICE in a final stage prior to its disintegration. Puddles have partially melted through the ice.



SMALL FLOE (30 to 600 feet across) with ram (underwater ledge). A few puddles are on the surface of the floe.



WEATHERED ICEBERG has a surface texture resembling the weathered surface of polished white marble and irregular outline due to advanced stage of decay.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

HEADED FOR COOL CRUISE—*USS Brough* (DE 148) has been assigned duty in Antarctica where she will serve as weather and picket ship for Navy planes.

Brough and Ready

Going south to escape the winter weather is "SOP" for some Newport residents, but when USS *Brough* (DE 148) rounded up her crewmen and headed south she had a different goal in mind—Antarctica and duty as a weather and picket ship for Navy aircraft flying from New Zealand to the frozen southland.

First Navy ship to leave the U. S. for participation in Operation Deepfreeze II, Newport-based *Brough* has been specially fitted for her southern duty. Her 40mm quadruple gun mount was removed and an aerology office installed. She was given a new radio direction finder as well.

Her ability to remain on station was increased by the installation of two new boilers, and new evaporators which can make 8000 gallons of fresh water daily. *Brough*, a 306-foot World War II destroyer escort is powered by diesel engines and has a 100,000-gallon fuel capacity which gives her extremely long endurance. For example, she can steam from Panama to New Zealand without refueling.

For her Antarctic duties, the escort vessel's normal 185-man crew has been supplemented by about 35 men, a Navy doctor and six enlisted aerologists.

Weather information gathered by the AGs will be extremely valuable to planes making the hazardous flights over the southern ice continent. The Navy weather specialists are using helium-filled, radio-bearing balloons to gather high-altitude weather information. Equipment aboard *Brough* receives and interprets messages from the balloons.

DE 148 arrived on station at 57° south, 170° east in mid-October and —weather permitting—she expects to be back in Newport in March.

YESTERDAY'S NAVY

On 3 Dec 1775 the Navy's first Fleet was put in commission. On 14 Dec 1944 the rank of Fleet Admiral, United States Navy, was established. On 16 Dec. 1922 USS *Bainbridge* rescued 482 crew members and passengers from the burning French military transport, *Vinh-Long*, in the Sea of Marmora. On 20 Dec 1941 Admiral Ernest J. King USN, was designated by the President as Commander in Chief, United States Fleet. On 20 Dec 1822 Congress authorized the outfitting of a naval squadron for the suppression of piracy in the Caribbean. On 24 Dec 1814 the Treaty of Ghent, ending the War of 1812, was concluded.

News of Navy Ships

Mythological gods, naval heroes, an island, a couple of U. S. counties —these and more are reflected in the roundup of the changes in status and the new construction needed to keep a "modern" Navy modern.

On the "what's new" side of the ledger:

- BuShips has announced plans to convert two merchant-type ships for duty in the development and testing of intermediate range ballistic missiles. New York Naval Shipyard will convert ex-ss *Garden Mariner*, which has been renamed **USS Compass Island** (AG 153); AG 154, the ex-ss *Empire State Mariner* has received no name as yet, but her conversion has been assigned to the Norfolk yard.
- Yet another merchant type—ss *Diamond Mariner* — has been assigned to a private yard for the preparation of plans, repairs, activation and conversion to an attack transport. As yet unnamed, she will bear the hull designation ***APA 248;*** her conversion will consist chiefly of installing a helicopter landing platform on the after deck, and the installation of heavy duty winches to handle large landing craft. When the conversion is completed, the APA will have an over-all length of 563 feet, a 76-foot beam and light displacement of 10,700 tons.
- Contracts have also been awarded for three ammunition ships —***AEs 23, 24 and 25.*** While similar to USS *Suribachi* (AE 21) and *Mauna Kea* (AE 22), the three new ones will feature improved machinery for conducting rapid replenishment-at-sea operations. AEs 23, 24 and 25 will also have air conditioning throughout their living and working spaces, redesigned crew quarters and the most recent habitability improvements. Each ship will carry a complement of approximately 20 officers and 330 enlisted men.
- Two major conversion jobs have been assigned to the Long Beach Naval Shipyard. The ships, ***USS Newell*** (DE 322) and ***Ramsden*** (DE 382), will be stripped down and rebuilt into radar picket escort

ships, with major portions of the conversion involving electronic installations, habitability features and extensive aluminum construction.

The gods of old have a new representative in the Navy, now that ***USS Thor*** (ARC 4) has been commissioned at Baltimore. The new cable ship (named for the Norse god of thunder) was converted from the attack cargo ship ***Vanadis*** (AKA 49) and is capable of laying and repairing cables, in addition to such supporting duties as performing hydrographic surveys and locating favorable hydrophone sites. *Thor's* low hull number is accounted for by the fact that cable laying was an Army function until 1950. Since that year the Navy has commissioned three other cable ships, ***USS Portunus*** (ARC 1), ***Neptune*** (ARC 2) and ***Aeolus*** (ARC 3). *Portunus* was originally the LSM 275, *Aeolus* was AKA 47 *(Turandot)*, and *Neptune* was a privately-owned vessel.

Other commissionings include:

• ***USS Barry*** (DD 933), which was placed in commission at the Boston Naval Shipyard. Third destroyer of the new *Forrest Sherman* class, *Barry* is the fourth Navy ship to bear the name of Commodore John Barry, illustrious Revolutionary War naval hero. *Barry's* vital statistics: 418 feet long, 45-foot beam, 3500-ton standard displacement—plus the latest in anti-submarine devices and armament which gives the class greater fire power than any previous destroyer class, despite a reduction in the number of guns carried.

• Yet another destroyer of the *Sherman* class, ***USS DuPont*** (DD 941), has been launched at Bath, me. *DuPont* is the fifth of her class and is expected to be ready to join the Fleet in July 1957.

• ***USS Salmon*** (SSR 573), the second submarine built specifically for radar patrol duties, has been commissioned at the Naval Shipyard, Postmouth, N. H. SSR 573 is the fourth Navy ship to bear the name and is a sister ship of USS *Sailfish* (SSR 572). *Salmon's* predecessor was a veteran of 11 Pacific patrols during World War II, winning the Presidential Unit Citation for her "extraordinary heroism against enemy surface craft."

• And a bottle of champagne has been smashed across the bow of ***USS Suffolk County*** (LST 1173), thus sending down to sea the Boston Naval Shipyard's first postwar ship construction, while Newport News has started building a member of the longer, faster LST 1175 group.

There's something new along Pacific Fleet supply lines, too: ***USS Castor*** (AKS 1) is back on the job after undergoing considerable modification to fit her for a new supply technique. Sporting a noticeably-changed silhouette, *Castor* has become an "all cog," a ship carrying a consolidated load of both technical and general stores materials. She will service the Fleet with a full line of electronics, ordnance and ship repair parts, in addition to the usual general stores items, clothing, medical and ship's store supplies.

Castor's "new look" includes a deck house extended as far aft as the king posts between hatches number 4 and 5; specially-designed drawers, bins and racks; a paint and lube storage area; a two-way tele-talk system between each level of each hatch and master control stations in the supply office and Fleet issue room; and reduced hatchways to make room for the future installation of pallet-sized freight elevators.

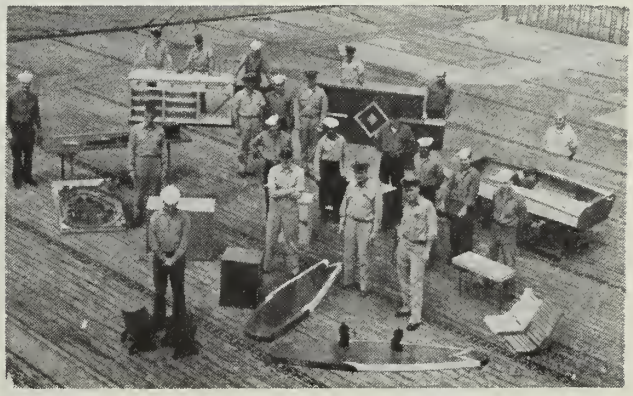
After a fashion, ***USS Hissem*** (DER 400) is also new, having been recommissioned up in Boston after lying inactive in the Fleet Reserve since 1946. The World War II destroyer escort has been completely rebuilt, refitted and modernized for her duties as a radar picket in the defense line operated by the Atlantic Fleet. DER 400 received her name from the late Ensign Joseph Metcalf Hissem, USNR, a naval aviator attached to Torpedo Squadron Eight, who lost his life in the Battle of Midway during World War II.

On the other side of the ledger, one of the oldest LSTs on active duty has been scheduled for inactivation at Bremerton, while an APA and three 'sweeps have already given up their Navy crews and two submarines have been turned over to Brazil.

• Battle-scarred ***USS Cassia County*** (LST 527) was originally commissioned in 1944, in time to participate with the Atlantic Fleet in the invasion of Normandy, Juno Beach and Omaha Beach. She made a total of 45 cross-Channel trips during the invasion; then transported equipment at LeHavre, carried food and supplies up the Seine River to Rouen, disembarked ammunition to troops on the Brest Peninsula at St. Michel and hauled some 1800 prisoners of war to England.

Returning to the States in July 1945, she served two years as "nest ship" in the inactivation of other craft at Green Cove Springs, Fla., before being inactivated herself in October 1947. Recommissioned in September 1950, *Cassia County* was transferred to the Pacific Fleet, where she completed three tours of duty in the Far East, including participation in both the "Little Switch" and "Big Switch" operations.

• ***USS Deuel*** (APA 160), attack transport and "movie star," has been



SEA HOBBY SHOP—Sailors of *USS Windham Bay* (T-CVU 92) tool leather. *Right:* Hobbyists exhibit projects.

Must Go Down to the Sea Again

While most Navymen end their seafaring careers when they retire, others can't shake the salt out of their systems and never get away from the sea at all.

Such is the case with LCDR Herman R. Hebb, USN, who enlisted in the Navy 25 years ago and retired in October. He has already taken to the sea again.

This time, however, he's off on a cruise that's different from any he has ever made. It's not a short several-month jaunt as most Navy cruises are nowadays, but he has his sails set for a 10-year voyage.

LCDR Hebb is making this cruise at the helm of his own command—a 30-foot Tahiti ketch named *Voyager*. His crew consists of one able-bodied seaman—his wife.

Departing from the small boat facility at Port Hueneme, Calif., LCDR and Mrs. Hebb plan to sail to Panama, transit the canal and then proceed north along the east coast of Mexico and the U.S. In April 1958, when the tide is right and the weather fair, the skipper and his mate plan to depart from New York and sailing for the Med.

LCDR Hebb enlisted as seaman back in 1931, receiving his basic training and attending radio school at Norfolk, Va. He served in various ships and air squadrons, and fought in both the North Atlantic and the South Pacific. In 1943 he was promoted from Chief Radioman to warrant rank, and then went on up the ladder. A graduate of the Navy's airborne electronics school, LCDR Hebb has been associated with Ground Control Approach since its beginning.

At the time of his retirement, LCDR Hebb was assigned to the Ground Control Approach Unit at the Air Missile Test Center, Point Mugu, Calif. While stationed there he purchased *Voyager* and planned his trip.

Since he'll sail coastal waters most of the way, the "retired" sailor and his wife do not expect to encounter any food or refrigeration problems.

Their longest stint at sea will be their journey across the Atlantic which will take them about four weeks. After reaching Europe, they plan to spend a number of years cruising waters off Italy and Spain.

CASTING OFF from Port Hueneme, Hebbs will sail coastal waters to N.Y.C. winding up with cruise to Med.

decommissioned at the Southgate Annex of the New York yard. Sharp-eyed sailormen may recognize *Deuel*, a veteran of the later stages of World War II and of the Korean campaign, as a part of the task force in "Away All Boats," a motion picture now touring Fleet circuits.

- Coastal minesweeper MSC 260 has been turned over to the Belgians at ceremonies in Boston Naval Shipyard—where she was promptly commissioned into the Belgian Navy as the M-935. Out in San Diego, **USS MSC 263** has been transferred to the Royal Danish Navy and renamed HMDS *Ulvsund*. And the Spaniards have taken over **USS MSC 265**, also under the provisions of the Mutual Defense Assistance Program.
- Last, but not least, the submarines **USS Muskallunge** (SS 262) and **Paddle** (SS 263) have been recommissioned at Philadelphia, only to be loaned to Brazil under MDAP.

Hobby Shop at Sea

One of the favorite spots on USS *Windham Bay* (T-CVU 92) when she puts out to sea is the ship's hobby shop. The hobby shop spaces were converted from the old pipe fitter and carpenter shops.

Windham Bay's hobby shop, which is open to all hands during their off duty hours, is equipped with the best hand and power tools available. Among the many articles the crewmen have built in the ship's hobby shop are motor boats, hi-fi and record cabinets, bars, handbags and other leather goods, book cases and model railroad systems.

Windham Bay is at present a part of the MSTS in the Pacific.

High-Speed Refueling

High-speed aircraft are receiving high-speed refueling at Moffett Field these days. The California naval air station has been equipped with a new fuel facility which will allow eight aircraft to be serviced simultaneously, instead of the usual one at a time.

The installation is composed of a 2500-barrel day tank (105,000 gallons), water separators, electrical facilities, some 6000 yards of concrete fueling aprons, and connecting roadways. Gas hoses are designed for pressure dispensing. Since 95 per cent of all jet aircraft manufactured today take on fuel from the underside, most of the aircraft will benefit from the new system.

Battle Against Killers at Sea

A Navy squadron of anti-submarine planes received some unusual training recently when they were asked to stalk a different kind of target.

Schools of vicious killer whales which plague Iceland's fishermen were bombed by units of PatRon Seven in an act of community cooperation. Killer whales, ranging from 20 to 30 feet in length, are feared as the deadliest of ocean creatures. They group-up in schools and prey on large fish and seals. These mammals have long, sharp teeth and it has been reported that they even attack and kill larger whales.

They present an extreme threat to Iceland's fishing industry as they annually damage several million *kronur* worth of fishing nets. These killer whales tear the nets to shreads after feasting on the fish trapped in them.

This is the second consecutive year that Navy *Neptunes,* the roving "aerial eyes" of NATO's Iceland Defense Force, went to the aid of Icelandic fishermen. Loaded with 350-pound depth charges, the VP-7 long-range patrol bombers patrolled Arctic waters in an attempt to destroy the whales or scatter them before they could do any damage.

Last year the killer whales did so much damage to fishing nets that the fishing season was threatened to be cut in half until the Navy stepped in and came to the fishermen's rescue. Taking up the fight against the whales, the Navy enabled the fishermen to complete their season and fulfill vital foreign trade commitments. Fishing is one of Iceland's two major industries. Fishing employs about 20 per cent of that nation's population and is responsible for a large portion of the foreign currency income.

It is reported that the patrol bombers from PatRon Seven, based at Iceland's Keflavik Airport, destroyed more than 90 per cent of a large school of whales on its first run. On another, more than half of smaller and scattered schools were destroyed. Whales not killed by the explosion were frightened by the blasts and diverted from the area.

According to Captain Agnar Gudmundsson, the skipper of an Icelandic whaler, the whales that survived the depth charging would scatter, traveling up to 30 miles per hour. Breaking up the schools, he said, should keep the killer whales away until the season is over.

Captain Gudmundsson served as a spotter aboard the patrol bombers during their whale-killing mission. He went along to identify the killers and to prevent the bombing of other types which are hunted commercially for their oil and meat.

Protection Against G Forces

With the arrival of the supersonic jet age with its high-flying bombers and fighters, the Navy is spending more and more time on problems of keeping pilots alive and alert during high-altitude flying.

Oxygen is required by all pilots normally flying above 10,000 feet. They would become unconscious in less than 30 seconds if they were deprived of 100 per cent oxygen supply above 30,000 feet. If a pilot's plane takes him above 40,000 feet he must receive this pure oxygen under pressure.

Above 50,000 feet the pilot must be provided with a complete artificial environment. His plane cockpit is pressurized but he must wear a partial or completely pressurized suit as well, to protect him in case battle damage or accident should depressurize the cockpit. At high altitudes, without a suit to protect him, his body would literally "explode" and he would die in a matter of seconds.

One of the latest suits developed for this purpose is a new "omnienvironment" pressure suit. In this suit the pilot is completely enclosed from head to feet much like a deep sea diver. Unlike the sea diver, however, who breathes ordinary air, the plane pilot breathes 100 per cent oxygen from the time his plane leaves the ground. This prevents him from getting the "bends" during rapid climbs.

The "omnienvironment" suit gives him protection against low air pressure, provides him with oxygen and protects against heavy G forces during maneuvers. To keep his body temperature at a reasonable level when high speeds heat up his cockpit, the suit includes provision for ventilation. Should he have to bail out of his plane over water, the suit will protect him against death in cold ocean waters. Now, in one garment, the Navy pilot will be afforded protection which formerly was provided by several suits.

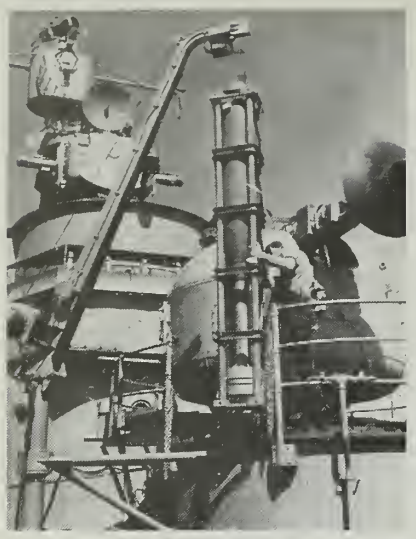
A First in Portside Refueling

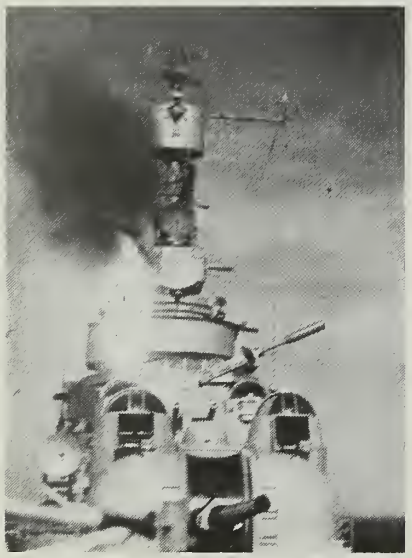
Refueling a destroyer from the port side of an angled deck carrier is highly unusual to say the least, but USS *Lexington* (CVA 16)—probably for the first time in the history of angled deck craft—has successfully performed that feat.

Biggest problem confronting both the carrier and USS *Laws* (DD 558) during the unorthodox refueling session was the possibility that the destroyer's mast might tangle with *Lexington's* deck overhang. Conducting refueling operations from the port side of carriers is complicated by the fact that a carrier skipper from his bridge in the starboard-side island has a difficult time seeing anything close along the port side of his flattop.

It took 10 days for *Lexington's* deck force, working according to the ship's blueprints, to put together a "homemade" rig for their portside fueling experiment, since the ship was equipped to refuel from the starboard side only. Once the "bugs" had been worked out, however, the carrier refueled *Laws* speedily and without incident—and *Lexington's* men declare the performance can be repeated with as little as a half hour's notice, even while conducting normal refueling operations on the starboard side.

USS SALISBURY SOUND (AV 13) poses for a portrait in San Francisco Bay. Her service with AirPac included carrying 650 Philippine troops for SEATO.





Nuclear Powered Cruiser

A contract for the construction of a nuclear powered guided missile cruiser, CG(N), has been awarded.

Previously identified as a nuclear powered guided missile light cruiser (CLGN), this ship is included in the Navy's fiscal 1957 shipbuilding and conversion program.

The cruiser, now being designed by BuShips, will be approximately 700 feet in length, with a displacement of approximately 14,000 tons. Armament will consist almost entirely of guided missiles.

The most modern improvements in electronic detection devices will be installed aboard the new ship, which is the first to be designed and constructed from the keel up as a cruiser since the end of World War II. It will be the Navy's first nuclear powered surface ship.

Warning Shot Wave Off

An emergency wave-off signaling device developed by an Air Navy CPO has been granted a U. S. patent, with the government reserving for itself royalty-free use of the invention.

Officially described as a "discharge device," the new gadget is a type of Very's pistol which can be fired from a remote point. A pilot who has something wrong with his plane or whose approach is bad can be alerted into a wave-off by Very's shells fired downfield well within his range of sight. The system makes it possible to wave off a pilot in the final moments of his let-down, even after the tower can no longer communicate with him.

Originator of the device is Wilbur B. Webb, ALC(NAP), USNR, who has been working on the idea since 1951.

Chief Webb, a veteran World War II pilot, started working on the device after seeing a wheels-up landing which could have been prevented by a wave-off signal such as the one he has patented. Although Webb will not be paid for any use the government makes of his invention, he will receive royalties from civilian enterprises using the discharge device he has developed.

LOOK OUT BELOW!—Weapon A spells death to subs as it blasts off *USS Wilkinson* (DL 5). New rapid firing covers larger area than old ash cans.

Panama Training Maneuvers

A joint armed forces amphibious and airborne training exercise will be held on the coral beaches and in the dense jungles in the Panama Canal Zone next April.

To be called Carib-Ex, the operation is part of the program to train troops under different climatic conditions, ranging from arctic cold to the humid heat of the tropics.

Some 24 Navy ships will engage in maneuvers in a mock attack on the Isthmus, along with more than 10,000 Army and Marine troops, and approximately 135 Marine and Air Force tactical and troop-carrier planes.

The five-day, two-phase exercise will encircle both sides of the Canal Zone and a portion of the Panama Republic, and will include training with simulated atomic weapons.

The first phase will consist of Navy and Marine amphibious assault followed by offensive air and ground operations against an "aggressor" army entrenched in the jungle.

The second phase will take place in the Rio Hato training area on the Pacific side and will be an Army airborne assault followed by the air-landing of Army troops and an air-ground offensive against an "enemy" force three.

The joint amphibious task force will include a regimental landing team and an air group from Fleet Marine Force, Atlantic. The Army airborne assault during the second phase of the exercise will be conducted by units from the Continental Army Command and group forces from Army Caribbean and Tactical Air Command Squadron.

Rattlesnake in the Air

The new air-to-air guided missile, the *Sidewinder,* is now operational and is on board Fleet units at sea. The missile is named after the fast-striking desert rattlesnake, the sidewinder.

Sidewinder will provide the Fleet with an inexpensive weapon capable of operating against high-performance aircraft. Extensive testing and evaluation have demonstrated that it can destroy enemy fighters or bombers from sea level to altitudes of over 50,000 feet.

Two Navy squadrons capable of handling the new missile already have been deployed with the Fleet.

Sidewinder represents a new approach to weapons systems for defense against supersonic aircraft. This new missile has very few moving parts and no more electronic components than an ordinary radio. Its simplicity makes it possible for Navymen to handle and assemble it without undergoing any specialized technical training.

Tracking The Earth Satellite

The first radio tracking station for measuring the path of the scientific earth satellite and obtaining other data has been established at Blossom Point, Md. The station, one of 10 planned for operation during the International Geophysical Year, is being operated by Project Vanguard personnel of the Naval Research Laboratory.

The Blossom Point radio tracking station will be used at first to evaluate the radio tracking system, known as Minitrack, and to train the operating crews for the other tracking stations.

ONR engineers and technicians at Blossom Point have been testing the tiny Minitrack transmitter that will send signals back from the satellite to the radio tracking stations on the ground. Initial tests indicate a high degree of efficiency and reliability for the little satellite transmitter, which weighs only 13 ounces and has a potential broadcast range of more than 4000 miles using Minitrack receiving stations.

Interesting results have been obtained from various tests using the Minitrack receiving equipment. For example, the station has received signals from the sun and other solar bodies, and evaluation tests also have been made by sending signals from aircraft and balloons to ground.

WHOOSH!—Rocket-propelled *Terrier* antiaircraft missile shows off its lethal power in test against P4Y-2K drone.

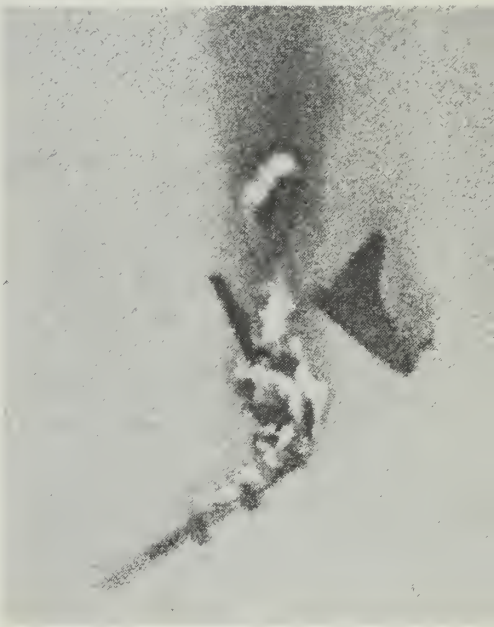
Smallest Combat Jet

The nation's smallest combat jet airplane, the A4D *Skyhawk,* has gone into service with the U. S. Navy following "Fleet Introduction Program" trials.

Less than half the size of many current jet fighters, the *Skyhawk* is so small that it was designed without the folding wings previously required for Navy carrier-based planes.

Span of the A4D is 27 feet, length 38 feet, and height 15 feet. The single-place, low wing monoplane, of aluminum alloy construction, is powered by a single turbojet engine.

It is capable of carrying atom bombs, rockets, guided missiles, machine guns, and other weapons.



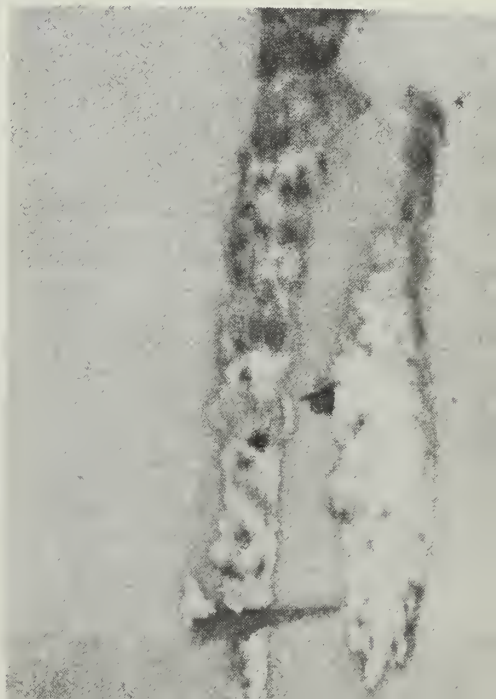
For Simulated Bomb Drops

The Navy has developed a new practice bomb container for teaching pilots how to deliver nuclear weapons. The device is expected to save the Navy thousands of dollars over earlier methods of training.

Resembling the external fuel tanks carried by jet fighters, the bomb container can be shackled to any one of a number of Navy fighter-bombers now in operational use.

This device, which carries four miniature bombs that are released through bomb bay doors, will be put to use in the near future by pilots assigned to the Fleet. The bombs weigh only 56 pounds.

The containers are packed with special electronics equipment and instruments which record simulated bomb drops in the pilot's cockpit.



OFF DUTY, SEA DUTY — Navyman David L. Williams, BU1, USN, spends most of his spare time 'ashore' at sea with his inboard racing boat 'Miss Fire IV.'

Speedboat Sailor

Everyone takes a busman's holiday once in a while, but Navyman David L. Williams, BU1, USN, does it all the time. Sailor Williams spends most of his time, both on and off duty, on or near the water.

Reason is quite simple: Williams' hobby is high-speed motorboat racing and he spends most of his off-duty hours building, working on, or racing motorboats.

"I've been interested in boats since I was old enough to think," confesses Williams. "I've been working with outboard racing craft for the past 10 years, and two years ago, I switched to the speedier inboard racing models."

Williams' present boat, "Miss Fire IV," is 10½ feet long and is powered by a 48-cubic-inch hydro full-race engine. The boat has been clocked at speeds in excess of 80 mph on a straight run. The engine has a cast block, stroked crank, milled flywheel and a full race cam. It runs on a 12-volt ignition system and develops 280 pounds compression.

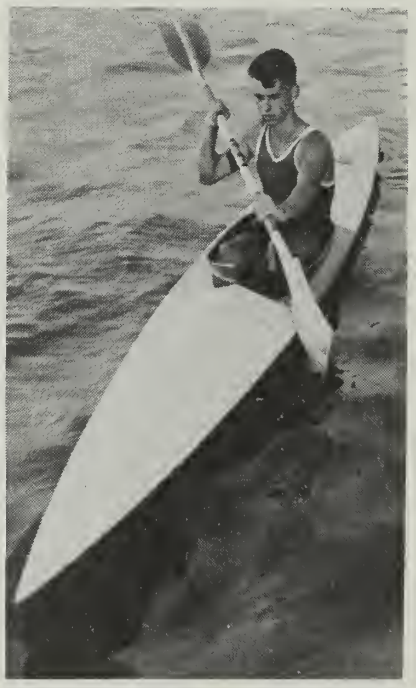
The latest race Williams competed in was the President's Cup Regatta in Washington, D.C. Other events he's entered include the 1952 Norfolk Regatta, the Tidewater Marathon in 1953 and '54, and the Elizabeth City International Cup Regatta.

Williams, a veteran of six years' naval service, was recently transferred from duty as an instructor at the Naval Retraining Command in Norfolk, Va., to Port Hueneme, Calif. Naturally he took his boat with him to try it on Western waters.

Sea Booters

The Sixth Fleet-based carrier USS *Randolph* (CVA 15) claims to be one of the few ships in the Atlantic Fleet with an organized soccer team.

Soon after the first call went out for candidates, more than 25 men showed up on the hangar deck for daily practice after working hours. The team now has a 2-2 record against military and civilian competition in Southern Europe. The organizer and coach is Lieutenant John B. Whittemore, USN, of VAW-12, a squadron attached to the carrier.



KAYAKING Navyman, John Pagkos, ETSN, USNR, paddled his way up into position on 1956 Olympic team.

The first game for the *Randolph* boosters was in Cannes, France, against the Central Bocca Soccer Club. The Bocca Club have been the champions of the Cote d'Azur league for the past four years.

The American Navy team lost to the Frenchmen by the score of 11-2 but the team's playing and sportsmanship made a big hit with the avid French fans.

Next game for the Randolph team was in Palermo, Sicily, against the highly regarded Campo Juventa team. The home team was too much for the carrier sailors, who lost an 8-1 decision.

The *Randolph* team broke the victory ice when the ship returned to Naples, Italy, where they posted their first win of the year. Victim of the *Randolph* booters was the British Military team, defeated 3-2.

The following week the carrier team once again took to the field of play against a reinforced British Military Club. Once again, the *Randolph* sailors took the measure of the British booters, this time to the tune of 5-0, marking the second victory and first shutout scored by the U.S. Navymen.—Dick Morris, BM3, USN, USS *Randolph*.

Year's End Sports Roundup

Clearing up the sports basket—A quick trip through the whirl of sports and here's what comes up from the sports basket:

Football — *George Welsh*, last year's great Naval Academy quarterback, guided the fortunes of the Norfolk Navy Tars. Along with *Richie McCabe*, ex-Pittsburgh Steeler, the Tars were among the Navy's top football powers. Other grid powerhouses this year were NTC Great Lakes and NTC San Diego. . . . One of the more surprising upsets this year came when the Little Creek, Va., Gators turned back Pensacola 6-0. The Goshawks were loaded with talent this year. Strong line play by the Amphibious sailors kept the Pensacola gridders in check throughout the game.

The Naval Academy's football team this year enjoyed one of its most successful seasons. Included in this year's string of victories was a mighty 33-7 lacing the midshipmen gave the Irish of Notre Dame. This marked the first time in 20 years (outside of a 1944 victory over the draft-depleted Irishmen) that a Navy team has defeated Notre Dame. Navy's rivalry with Notre

Dame has been going on for 30 years and is second only to the Middies' rivalry with Army.

Baseball and softball — Perfect games were tossed by *Dick Irvine*, SN, USN, of NAS Norfolk and *James E. Mead*, RD2, USN, of USS *Estes* (AGC 12). Irvine tossed his no-hit, no-run game in the Fifth Naval District baseball playoffs. The victims of the chunky Irvine's slants were the Norfolk Tars. Jim Mead pitched his perfect, no-hit, no-run, no-man reaching-first, game in the South Seas softball League against the team from USS *Curtiss* (AV-4). Both men received trophies furnished by the Chief of Naval Personnel.

Not to be left out of the act, the BuPers softball team won the Navy Department combined softball championship. Ex-sailor Les Myers, now a civilian employee for BuPers, tossed 19 consecutive victories for the BuPers sailors. Included in his wins were a no-hitter, four one-hitters and five two-hitters. Myers had an average of 11 strike-outs per game. The top hitters for the BuPers team included *Roy Reitz*, YN3, USN, Ensign *Jim McMillon*, USNR, LTJG *Tom Smith*, USNR, and *Dick Hart*, MA2, USN.

The baseball team from USS *Forrestal* (CVA 59), won the ComAirLant title. . . . NAS Dallas "Grasscutters" copped the 8th N.D. softball title. . . . The "Minemen" from Charleston, S. C., won the Charleston City Championship and the South Carolina State Recreation Softball title. . . . Eastern All-Navy softball champs are from Submarine Squadron Six in New London, Conn. NAS Miramar took the Western All-Navy softball crown in a close victory over SubPac. *Irv Green*, BM2, USN, three time winner of CNP awards for pitching perfect softball games, and *Al Bessol*, had a combined average of 13 strike-outs per game during the Western tourney to lead Miramar to the title.

The "Top-of-the-World" softball title was won by the team from USS *Eldorado* (AGC 11), 9-6 over the Eskimos from Barrow Village, which is the northernmost settlement in the North American continent. *Eldorado's* squad earned the right to play the Eskimos by winning the elimination tourney among the ships that made the DEW Line Resupply Expedition. Although the title game was played in Alaskan mid-summer, the thermometer hovered around 26 degrees.

NEW DANCE? — No, this 'conga line' is result of camera's action-stopping flash in inter-service game at U. S. Fleet Activities, Yokosuka, Japan.

The USS *Salisbury Sound* (AV 13) softball team won the tough Mare Island Naval Shipyard baseball tourney with a 5-2 record. . . . This year's BatCruLant baseball champion is the team from USS *Des Moines* (CA 134).

The biggest racketeers in the U.S. Navy today are Ensigns *Bobby Payne* and *Alan Fischl*. Payne won the All-Navy tennis singles title and then joined with Fischl to take the doubles championship. Senior singles champ is Captain *Harry Reiter*, both from the Pacific Fleet.

Winner of the All-Navy golf title this year was LTJG *Dirk Prather*, USN, a jet pilot from ComAirPac. *Bill Scarbrough*, AOC, USN, who was runner-up in the U.S. Public Links tourney, finished second in the All-Navy championship. He's attached to Fleet Air Wing 11 in Jacksonville.

MOTORCYCLING SAILOR Norris Gulbrandson, SN, USN, from Norfolk, won trophy in Richmond, Va. race.

The ComAirPac "Skyraiders" won the Military Division of the National Skeetshooting Championship by the slim margin of one pigeon. The AirPac scatter gunners scored 1208x-1250 to edge the shooters from NAS Jacksonville, Fla., who were 1954 champions.

AirLant defeated ServLant 15-6, 15-12, to win the Atlantic Fleet volleyball championship.

LTJG *Bill Andre*, USNR, led the U.S. Modern Pentathlon team to fourth place in the international competitions held in Sweden. The former Dartmouth athlete finished eighth in the individual standings.

CDR *J. M. Ireland*, USN, of USS *Manchester* (CL 83), weighs in with a very interesting story. Playing over the Navy-Marine golf course in Pearl Harbor, he scored a hole-in-one on the par 3 No. 17 hole. Unfortunately, his ace came in March 1954, some six months before the BuPers "Hole-in-One" trophy was established. What's more interesting, however, is the fact that during the same round of golf, he had the following scores on each of the four par 3 holes: On hole No. 3, he took four strokes to get down; on hole No. 6, he came in with a par three; on hole No. 14, he had a birdie two; then on No. 17, he aced out. You can't lower your score any more than that. But, who knows, some funny things can happen in the whirl of sports.

BOXING TEAM IN OLYMPIC TRIALS poses with RADM J. R. Redman, *center*. Members are, *left to right*, F. Keating, C. Cush, R. Wharton, D. Bailey, B. Davis, H. Brown, F. Lee, J. Brown, P. Moynihan, L. Jones, D. Hobson, P. Segura, P. Brown, R. Nichols, W. Branch, A. Gibbs, (coach), M. Griffith (trainer) and R. Meath (Officer-in-Charge).

Boxers Go Down Like Champs

An underdog Navy sock squad came forth with a tremendous effort in the American Olympic Boxing Trials in San Francisco's Cow Palace, although failing by a close decision to place a man on the 10-man American Olympic team.

Pre-fight dopesters had it that the Navy's 11-man squad would be eliminated in their first fights. Although Navy had the smallest squad entered of any of the services, four Navy boxers, Duhart Bailey, Carl Cush, Ray Wharton and Francis "Tabby" Lee, reached the semi-finals with Lee to the finals.

In a performance that surprised just about everyone except the Navy boxers and their coaches, the Sea Service sluggers won six of nine fighters on opening night. Ray Wharton, SH2, USN, veteran Navy pugilist and twice former All-Navy champion, opened battle for the Blue-and-Gold garbed fighters. Ray, at 32, was the oldest fighter on the Navy team and probably the oldest boxer in the Trials.

But Wharton's ring savvy more than made up for any age deficit when he fought and won two fights on the first night's card. In the first bout, Wharton went against Ernie Fujiwara of the Air Force. Fujiwara was quite willing to mix it up, but his willingness was matched by his inexperience as the cat-like Wharton circled and planted his punches at will. Wharton decked the game Airman in each of the rounds and was awarded a unanimous decision.

Wharton's second fight of the night, and the last of a 42-bout card, came at 0045 against Rudy Valdez of Corpus Christi, Texas. The 18-year-old Texan was a little stronger and a heavier puncher than Ray's first opponent, but his lack of experience or, perhaps, Wharton's greater edge in the ring knowledge department, proved the difference.

In the semi-finals, Wharton went against Choken Maekawa, NCAA champ from the University of Wisconsin. As has been Wharton's trouble throughout his fight career, his short arm reach again was his downfall as Maekawa outpointed the game sailor. Maekawa won the title and an Olympic berth.

The only Navyman to reach the finals was Francis "Tabby" Lee BMSN, USN, 1956 All-Navy 125-lb. champion. Tabby's road to the finals was rocky. In his first bout, he faced Robert Hicks, of Seattle, Wash., who boasted of a string of 25 consecutive victories and was heavily favored to go all the way.

Lee proved to be the master boxer and at the end of the second round, he decked Hicks for the mandatory nine count. Hicks came back strong but Lee withstood his best shots and won by unanimous decision.

NAVY 125-LB. CHAMP Tabby Lee heads for neutral corner after decking Robert Hicks of Seattle, Wash.

In the quarter-finals, Lee went up against Bobby Soileau from Louisiana State University. Lee found Soileau an elusive target but a previous injury to Soileau's shoulder was aggravated by one of Lee's heavy shots and Soileau was forced to retire. Lee won by TKO.

Cincinnati's John Joiner didn't prove too much of a problem to Lee as the hard hitting sailor scored a quick knockout in the second round to advance to the finals.

Lee fought a good fight in the finals for the 125-lb. Olympic berth but he couldn't solve the unorthodox tactics used by the All-Air Force champ, A2/c Harry Smith. The airman went on to win a close decision.

Duhart Bailey, SD3, USN, this year's All-Navy light welterweight king, also reached the semis in the Trials. His first bout was with Richard Rall from Washington State College. It was an even match, with the two sluggers taking turns staggering one another. Bailey, however, was the better boxer and won unanimous decision. Juan Melendez, All-Army champ, provided more than enough competition for Bailey in the semi-finals. The tough slugger from Puerto Rico came out swinging at the opening bell and dropped the Navy champ for the count in two minutes of the first.

Carl Cush, AN, USN, was the fourth Navy fighter to reach the semi-finals. Cush got past Marine private Ray Powell in his first bout with moderate ease but had a rough time winning a split decision over the tough Dick Bartman from the University of Wisconsin. In the semi-finals, Cush lost a decision to John Granger from Massena, N. Y.

Navy winners of first round bouts were Henry Brown, TN, USN, who

put up one of the best fights of the Trials as he KOed Willie Moran in the third. But Brown suffered a cut eye and had to default next bout.

William Branch, SN, USN, was paired against his teammate Pat Moynihan, SN, USN, in the middleweight class. Branch scored a fast first round knockout with a short left hook and a solid right to the jaw. Branch was victim of the same fate in his next bout as he was KOed by Ed Crook of the Army.

Losers in the first round bracket were flyweight Perfecto "Chico" Segura, SN, USN, who went out in a second round KO at the hands of Army champion Francis Okuda; light heavy Don Hobson, SN, USN, didn't last long, KO victim of Ron Freeman of Milwaukee in the first; Louis Jones, SN, USN, lost a close decision to Marine heavyweight champion Jesse Barber; and Paul Brown, SN, USN, was outpointed by AF middleweight George McCorkle.

Ten Commandments of a Hunter

Among the many advantages of Navy life is the opportunity to hunt and fish in many areas of the U.S. and even in some foreign countries. This is the time of year for hunting.

One of the dangers of hunting is the possibility of a gunshot wound that could be painful, possibly disabling or even fatal. Because you're in the Navy and had the chance to fire a rifle on the range makes you no expert.

It might be well for you to learn and obey the Ten Commandments of a Hunter. These Commandments are:

1. Treat every gun as though it were loaded.
2. Carry only empty guns, taken down or with the action open, into your automobile, camp or home.
3. Always be sure that the barrel and action are clear of obstructions.
4. Always carry your gun so that you can control the direction of the muzzle even if you stumble.
5. Be sure of your target before you queeze the trigger.
6. Never point a gun at anything you do not intend to kill.
7. Never leave your gun unattended unless you unload it first.
8. Never climb a tree or a fence with a loaded gun.
9. Never shoot at a flat, hard surface, or the surface of water.
10. Do not mix gunpowder and alcohol.

SIDELINE STRATEGY

They were battling for the highest honors in amateur sports—a trip to Melbourne and the 1956 Olympics. Soldiers, sailors, marines, airmen, college boys, and other amateurs in all walks of life, whaled away at one another for three nights in San Francisco's Cow Palace in the American Olympic Boxing Trials. But one of the standout matches was that of a fighter who did not make the Olympic team.

Carrying the Navy standard were nine tough youngsters from around the Fleet — the best available. The toughest of the tough proved to be young Henry Brown, SN, USN. By all rights, Brown should have been beaten. But the word 'quit' is not in his dictionary. Brown just plain refused to be beaten.

The tall 148-lb. All-Navy champion took a terrific lacing from Willie Moran during the first two rounds. His eye was cut and he was reeling . . . but swinging. Brown, actually, was beyond the point of no return in the second round, yet he came back. He had been hit with every size, weight, and angle of punch imaginable. Yet he was still on his feet and even landing a few effective punches himself.

Comes the third and Moran is on Brown in a flash. He'll put Brown in slumberland this round for sure. But from somewhere out of the depths of his tremendously game fighting heart, Henry Brown finds new strength to uncork a powerful right hand that ends up on Moran's jaw. That's it! Moran reels back on his heels and then flattens out on his back—out cold.

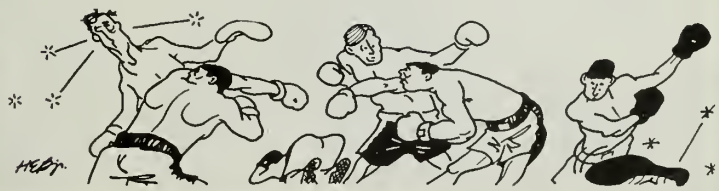
Battered and bloody, but victorious, Brown let the referee lift his right glove. The announcement of the knockout was drowned out by the resounding ovation which the crowd gave bulldog Brown. A veteran sports scribe from one of the dailies wrote that never before in 31 years had San Francisco fight fans seen such a display of strength and will to win.

As the unconquerable Brown departed the ring for the dressing room, the 5000 fans in the Geneva Street emporium again gave him a standing ovation until he entered the dressing room door.

Brown's victory, however, was not without its price. He had suffered a badly cut eyebrow. By previous agreement between the Olympic Committee and fight managers, court plasters would not be used to shore up cuts, although this item was not strictly adhered to. But Navy coach Al Gibbs wouldn't risk his ace to possible serious injury and Brown had to default his match the following night.

It's problematical whether Henry Brown could have gone all the way. But if it had depended on fighting heart, we'll bet a steak dinner that Henry Brown would have had a seat on the plane that went to Australia.

—Rudy C. Garcia, JOC, USN



Brief news items about other branches of the armed services.

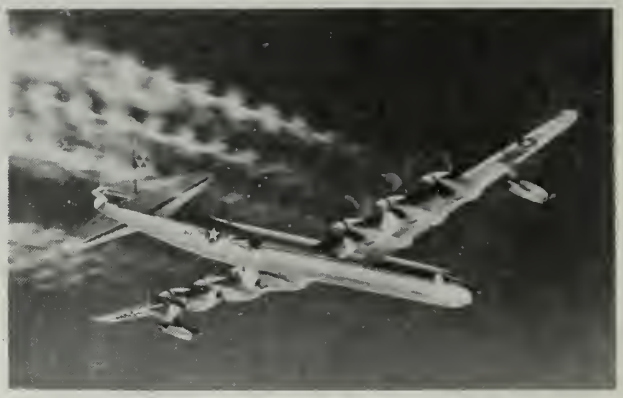
★ ★ ★

THE DAY OF THE ATOM-POWERED airplane may not be here yet, but it's right around that next corner. As the world's first aircraft to fly with an operating atomic reactor aboard, the B-36 intercontinental bomber, NB-36H, has been carrying out research leading to the development of a true atom-powered airplane.

In tests high over the Southwestern United States, effects of radiation upon instruments, equipment and the NB-36H's airframe are measured by the "hot" reactor which, although taken along for the ride, has not yet been used to power the flight. Methods of shielding the crew, reactor operators and electronic devices from radioactivity are tested, and new types of nuclear instrumentation are checked out.

The plane's dark blue nose differs sharply from that of a conventional B-36 and the huge vertical tail carries an orange radiation symbol that distinguishes this aircraft from all others. Airscoops on the fuselage aft of the wing cool the reactor when it is operating.

The low-powered reactor is never turned on until the plane is high over an unpopulated area and then only long enough to obtain the necessary test data.



'A-PLANE—Air Force's nuclear test plane, NB-36H, uses props to high altitude where reactor can be safely tested.

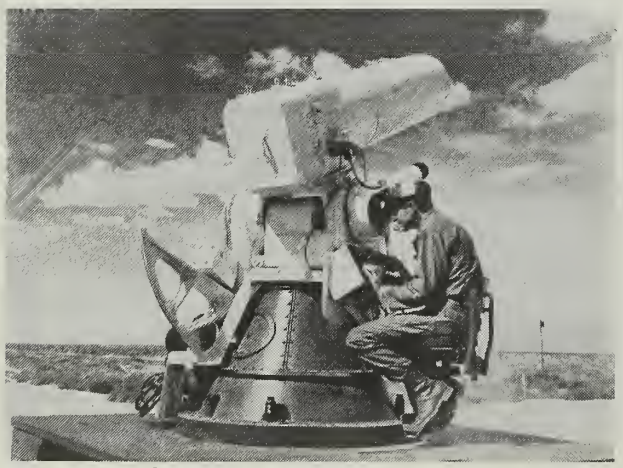
★ ★ ★

A GIANT TELESCOPIC TRACKER capable of tracing a missile 300 miles away and which clearly shows fast moving aerial objects in natural color on the instrument's scope, has been developed by the Army Signal Corps.

The new one-and-a-half ton optical colossus, which has a 400-pound lens system, takes black and white photographs of rockets, jets and other flying objects automatically.

The camera has a capacity for taking up to 20 pictures per second. To provide an accurate film record of target information, almost perfect frame to frame film registration has been achieved, even at the 20 pps speed.

Fast and accurate tracking is obtained manually by "crystal ball" control of a servo-system. This device, used for several years in antiaircraft controls eliminates the free slewing method and the method of hand turned elevation and azimuth wheels. In practice, the operator or tracker, moves the "crystall ball" so that the image of the target, seen through the tracking telescope, remains centered on cross hairs. A seat for the operator is mounted on the pedestal and rides with it.



SEE DUTY—With Signal Corps' new telescopic tracker operator can check fast-flying objects 300 miles away.

In addition to the "crystal ball" method, a syncro-system can also be employed to orient the tracker. An object beyond the telescope's range could be picked up on radar which in turn would position the tracking telescope on the object even before the object was visible to the operator.

Self-contained in the platform of the tracker are the motor drives and controls necessary to move the scope into position.

The unit, now at White Sands, N. M., is being tested on a variety of vehicles and artillery carriers.

★ ★ ★

A NEW, EXTREMELY lightweight high-altitude research missile that raced 3800 miles an hour into outer space during its first flight may be used to obtain data in development of Department of Defense space vehicles.

First flight of the rocket, which is small enough to fit in a family-size station wagon, lasted 5.6 minutes. In this time the missile reached an altitude of 80 miles where it relayed measurements of primary cosmic radiation, temperatures and spin of the rocket and acceleration experienced by internal equipment.

The rocket firing was the first of a series of launchings to be made from different areas around the earth to probe the ionosphere, a layer of space above the stratosphere beginning 80 miles up. Data obtained from this and subsequent firings will be used to form a more complete picture of the upper atmosphere.

Called *'Terrapin,'* the two-stage rocket is less than 15 feet long, six and a quarter inches in diameter at its thickest point, and weighs only 224 pounds.

A solid propellant rocket motor fires the *Terrapin* to 10,000 feet in six seconds at a speed of 1900 miles an hour. At that altitude the first stage of the missile

separates from the second stage which coasts another 30,000 feet higher. Then the second-stage motor shoots the *Terrapin* to 50,000 feet at a maximum speed of Mach 5.8 (5.8 times the speed of sound), or about 3800 miles an hour. The missile coasts the rest of the way to peak altitude. At maximum velocity the rocket experiences temperatures in excess of 1000°F. A third-stage rocket for the *Terrapin* which would enable it to climb to altitudes of 200 miles and higher in only a few seconds more time is in the design stage.

The research missile and its collapsible zero-length launcher were specially designed for the upper atmosphere research program. It carries special miniaturized instrumentation weighing only six pounds.

The instruments, which are housed in *Terrapin's* "warhead," make use of several new electronic principles, including printed circuits, an all-transistorized telemetering (radio) system, a Geiger counter to measure radiation and a new design transmitter. The instrumentation is "so simple" it was built and assembled by high school and university students. Special protective devices are built into both the rocket and instruments to shield the sensitive equipment from the intense heat.

The *Terrapin* is claimed to be one of the cheapest and most portable high performance rockets of its kind, and its cost reputed to be only a fraction of that of missiles previously used to obtain high-altitude data.

★ ★ ★

THE FIRST SPECIAL FORCES (Army) reserve group in the history of the U.S. is now being organized in the New York-New Jersey area. They will be trained to operate as guerrillas behind enemy lines.

All recruits must be "double volunteers." This means they must volunteer for airborne and volunteer to operate behind enemy lines during hostilities involving the U.S. on a sustained basis.

Physical and mental requirements are high. The men selected, for the most part, will be expected to converse in at least one foreign language or show an aptitude for learning one readily.

Training hours will be similar to those required of other reserve organizations — 48 two-hour training periods a year and two weeks of summer camp. Additional week-end drills may be scheduled to accomplish certain phases of the training.

ARMY'S VTO experimental plane (shown in artist's conception) uses propeller's slip stream for straight-up lift.

LONG RANGER—B-36 aircraft of the USAF Strategic Air Command line up along airstrip after training flight.

SIX BOTTLES OF AIR captured by Signal Corps scientists from the borderline of outer space—only existing samples of pure air from very high altitudes—are expected to help solve basic mysteries in rocketry and geophysics.

The samples were collected 75 miles up by steel bottles inside the nose cones of two 20-foot Navy *Aerobee* rockets. As the rockets reached peak altitude, the bottles popped open one at a time, then snapped shut to trap eight quarts each of the very thin air. The nose cones were then parachuted to earth.

The captured air is so thin that it would not support life. Compressed to the density of normal breathing air, the 48 quarts would take up less than one cubic inch. A human being or animal living at earth level would literally burst from internal body pressures if sealed up in a room filled with such thin air. Complete analysis of the samples will take several months, but Signal Corps scientists expect to prove whether common gases begin separating into layers at high altitudes.

★ ★ ★

A NEW "MECHANICAL MULE" is scheduled to give the Army's weary combat soldier a welcome lift.

Designed for off-road mobility in forward combat area the vehicle is a four-cylinder version of the famed four-footed animal that took Army units and material over the roughest sort of terrain. Weighing only 750 pounds, and capable of carrying more than its own weight, it can be transported by truck, plane or helicopter and can be dropped by parachute.

The "mule" is the first of its type to be added to the Army's mobile family since development of the jeep.

Capable of moving heavy loads from one mile up to 25 miles an hour, the vehicle can climb a 72 per cent slope. It is 100 inches long, 46 inches wide, with a low silhouette of 27 inches.

Designed primarily as a cargo carrier for weapons, ammunition or other material that otherwise would have to be hand-carried over rough terrain, the "mule" also can be used as a mount for the 106mm recoilless/rifles.

First deliveries are scheduled within a year. Previuosly five experimental models had been built and put through a series of rigid tests.

THE BULLETIN BOARD

What You Should Know and Do About NSLI, USGLI Insurance

ON 1 JAN 1957, when the Servicemen's and Veterans' Survivor Benefits Act (Public Law 881, 84th Congress) goes into effect, new and broader death benefits will replace the automatic Servicemen's Indemnity, commonly known as "$10,000 free insurance."

This change will affect many Navymen who dropped or waived premiums on U. S. Government (USGLI) or National Service Life Insurance (NSLI) policies when the free insurance came along. For instance, those who are eligible can now give their dependents the protection of both the new death benefits and "GI insurance." But, after 1 May 1957, if you die while the premiums on your old policy are still under waiver your dependents will be entitled only to the death benefits in existence before the new law. And, should you put off reinstating or replacing a lapsed or surrendered policy until after 1 Jan 1957, then die before you get a chance to do so, you would not be covered by your insurance.

These matters have probably been explained to you already by your insurance officer. However, just in case you haven't yet decided what to do, here's some important information:

• ***Policies Surrendered for Cash***—If you surrendered a permanent plan policy for cash while on active duty after 24 Apr 1951 and before 1 Jan 1957, this applies to you.

On and after 1 Jan 1957 you may obtain, either while in active service or within 120 days after separation, a new policy at the premium for your attained age on the *same plan* and not in excess of the amount surrendered, or you may reinstate your old policy. If you're being separated from active duty before 1 Jan 1957 you cannot reinstate or replace such a policy while still in service, but after separation you have 120 days in which to do so without having to take a medical examination.

Personnel now on active duty who have had any break in service of *more* than 120 days since the date

of surrender or expiration do not have the right to reinstate or replace such policies unless they took that action within the 120-day period after they were separated. Breaks in service of 120 days or *less* would not affect that right, since it has been preserved by your return to active duty within the required period.

Those who are eligible may reinstate their surrendered permanent plan policies by paying the premium for the effective month of reinstatement, plus the cash reserve on the old policy. In addition, those reinstating USGLI (this doesn't apply to NSLI) will have to repay any termination dividends they received upon surrender for cash in or after 1953, plus interest at 3½ per cent per year. The cash outlay for reinstatement can be reduced by borrowing against the reinstated loan value of the policy. However, when you borrow against the policy you create a debt against it, and you must repay the loan at four per cent annual interest.

Replacing permanent plan insurance with a new policy requires a smaller initial cash outlay, but your premiums will be larger because they'll be based on a later insurance age than the one on your old policy. To do this you merely pay the first month's premium at your insurance age as of the effective date of the new policy, or, to take advantage of a slightly younger insurance age, you can request that your policy be antedated. In that case the effective date of the new insurance may be the first day of any month back to and including 1 Jul 1956, but no earlier. However, insurance coverage under antedated contracts will not begin until 1 Jan 1957.

In order to provide continuous protection, the Veterans Administration will accept applications for reinstatement or replacement before 1 Jan 1957, even though Public Law 881 does not go into effect until then. This is done with the understanding that such applications will be considered to have been filed on 1 Jan, and no insurance coverage is granted before that date. If you are eligible and meet all the requirements your policy will go into effect on New Year's Day.

• ***Five Year Level Premium Term Insurance***—If you had a five-year term policy, the term of which expired while you were on active duty after 25 Apr 1951 and before 1 Jan 1957, you can replace it with an equivalent amount of the same type of insurance, with premiums based on your age at the time of replacement. (You may also replace such a policy if the term expired during a break in service of 120 days or *less* within the above period.)

However, in order to do this you must apply for the new policy while you are in active service or within 120 days after separation. Applications must be accompanied by payment of premiums and evidence of good health satisfactory to the Administrator of Veterans Affairs.

As in the case of policies surrendered for cash, applications for replacement of expired term policies will be accepted by the VA before 1 Jan 1957 in order to provide continuous coverage, but they will be considered to have been filed on that date and will not provide insurance protection before then. If you are eligible, have met all the requirements and your health is as good on 1 Jan 1957 as it was when the application and report of phy-

sical examination were submitted, your insurance will be made effective on New Year's Day. Evidence of good health on 1 Jan 1957 may be furnished in the form of a certificate to be completed by the applicant on or after that date. The VA will distribute these certificates to all applicants in late December of this year.

If your five-year term National Service Life Insurance has lapsed since 23 Jul 1953 for failure to pay either or both of the last two monthly premiums of the term period, the new law also allows you to renew or reinstate such insurance, provided you do so before the expiration of the next succeeding term period. The VA will forward reinstatement applications and instructions to all individuals in this category without application by the policyholder. To reinstate, you must then submit the required premiums and evidence of good health.

These rights also apply to those who were Naval Aviation Cadets or Midshipmen of the Naval Academy on 25 Apr 1951, and were later commissioned or enlisted.

• ***Application for Reinstatement or Replacement*** — Inquiries, or completed applications, about reinstatement or replacement of policies should be addressed to:

Veterans Administration Insurance Center
Attention: Replacement Section
Munitions Building
Washington 25, D.C.

If you don't know the policy number of your surrendered insurance, forward your application anyway and the VA will add that information. MONETARY REQUIREMENTS FOR REINSTATEMENT OR REPLACEMENT MUST BE MET BY 1 JAN 1957 IF YOU WANT CONTINUOUS INSURANCE COVERAGE.

The following forms should be used:

• For replacing expired term insurance—VA Form 9-4353

• For replacing surrendered permanent plan insurance—VA Form 9-4354.

• For reinstating surrendered permanent plan insurance — VA Form 9-4363

When any of the above forms are completed, the legend "Section 623" should be conspicuously written or stamped across its top margin for identification purposes. An application completed before 1 Jan 1957 should (in addition to premium payments, etc.) be accompanied by a supplementary statement showing that you understand the special conditions under which the VA accepts the application. You should be able to get copies of this statement from your insurance officer.

• ***Post-service Five-Year Nonconvertible Term Insurance*** — If you're being separated from the Navy before 31 Dec 1956, you've probably been informed by now that you cannot apply for post-service Five-Year Nonconvertible Term Insurance after that date. But, just to make sure, here's another reminder:

Applications must be submitted on VA Form 9-4356 and accompanied by a check or money order made out to the Veterans Administration for the proper premium.

They must be received by the VA, or postmarked, by 31 Dec 1956, or they must be delivered to an authorized representative of the Navy or Marine Corps by that date for forwarding to the VA.

The date of application cannot be earlier than the date of separation.

• ***Service-Connected Disability Insurance***—The new laws do not make any major changes in post-service nonparticipating insurance for service-connected disability. This will still be available after 1 Jan 1957 to members of the armed forces who are disabled while on continuous active duty or active duty for training for not less than three, or more than six months under the Armed Forces Reserve Act of 1952, as amended, Subsection 262 (c) (1).

"Of all the miserable ports, this takes the cake!"

The insurance plans offered to personnel in this category are Five-Year Level Premium Term, Ordinary Life, Thirty-Payment Life, Twenty-Payment Life, Twenty Year Endowment at Age 60 or Endowment at Age 65.

Personnel released or separated from active duty under other than dishonorable conditions are eligible for this insurance provided they are found by the Administrator of Veterans Affairs to be suffering from a disability or disabilities rated at 10 per cent or more, and except for which they would meet the established qualifications for insurance under the good health provisions of the National Service Life Insurance Act of 1940, as amended. This does not apply if the disability is a dental condition for which a rating is made only for purposes of dental treatment.

Upon application and payment of premium to the VA the insurance may be granted any time within one year after the date the Administrator of Veterans Affairs determines that the disability is service-connected.

Waiver of premiums may be granted on this type of insurance in accordance with the provisions of section 602(n) of the National Service Life Insurance Act of 1940, as amended. Except that no one who is totally disabled will be granted insurance on the endowment plan, a waiver will not be denied on the ground that the disability became total before the effective date of the insurance. Initial and subsequent premium payments should be kept up until the VA has determined that you are entitled to disability waiver of premiums.

If the person to be insured is mentally incompetent, application may be made for him by his guardian or other legally authorized representative.

• ***Waivers***—Waivers of premiums (except on service-connected disability insurance) will no longer be granted after 31 Dec 1956, but waivers in effect on that date may be continued or terminated at any time.

However, if you keep your policy under in-service waiver beyond 1 May 1957 and die on or after that date, your widow, children or

parents will not be entitled to the dependency and indemnity compensation provided for in Public Law 881. Instead, they will receive only the VA death compensation payments in effect before January 1957, which in most cases are lower than the new benefits. (Reservists should take note of the fact that effective 1 Jan 1957 their benefits now payable under the Federal Employees Compensation Act are cancelled, except that survivors already receiving such benefits can elect to continue doing so. The new survivor benefit laws apply in the same way to all components of the Armed Forces, without any distinction as to whether death occurs in peace or war.)

In some cases an individual might benefit by retaining his insurance under waiver—for example, a bachelor with no dependents or a man in pay grade E-1 or E-2 with a wife and four or more children under 18. In the latter case (because of the widow and large number of children) the payments to survivors could be greater under the old peacetime VA compensation rates than they would under Public Law 881. Personnel who might come under this category should decide which election is to their advantage before 1 Mar 1957.

If you want to terminate a waiver, so that your widow, children or parents can receive the benefits of the new law, you should make sure that the VA receives the required premium for the premium due date *prior to 1 May 1957*. In other words, if the premium due date is 25 April, the required premium should reach the VA on or before that date. Otherwise, the termination of waiver will not be effective until 25 May, the next due date of the premium, and your survivors would not be entitled to the benefits of the new law if you should die during the period from 1 to 24 May.

Five-year level premium term policies now under waiver may be converted to permanent plan policies at any time by terminating the waiver, submitting an Application for Conversion (VA Form 9-358) and sending in the required premium. Tender of the required premium will be considered by the VA as a request for termination of waiver. Advance authorization for insurance allotments may be forwarded as early as 1 Nov 1956, with first pay dates as late as April 1957.

All persons who have, or believe they have, NSLI or USGLI policies under waiver will complete at least two copies of VA Form 9-5782 ("Veterans Administration Request for Information/Action on Section 622 Waiver—Government Life Insurance") and forward the original to the Veterans Administration, Insurance Center, Munitions Building, Washington 25, D.C. The other copy will be retained with the individual's service record.

Officers certifying to service information in item 10, Part I, of this form will make sure that the individual completing the form has accurately filled out all the items from one through nine, and especially items four through eight.

If you indicate on this form that you intend to resume payment on a policy under waiver (by checking Item 14a or b of Part 1), remember that the waiver will still remain in effect until the VA receives the premium allotment or your direct remittance. If you check Item 14c, Part 1, the pure risk insurance portion of your permanent plan insurance will be returned by the VA without further application.

The VA will acknowledge all waiver cancellation requests by returning Part II of VA Form 9-5782 to the individual concerned. This form should then be delivered to your commanding officer for further processing and so that the information on it can be transcribed on the duplicate copy in your record.

Personnel who do not want to cancel their waivers will not receive any acknowledgement from the VA.

Requests for a retroactive allotment for payment of premiums will be approved if the late submission is definitely beyond the control of the allotter.

If you have term insurance under waiver and don't want to pay the required premium, but do want your dependents to be eligible for the increased survivor benefits authorized under Public Law 881, you should submit Form 9-5782 to the VA for termination of your insurance waiver, then let your term policy lapse for nonpayment of premiums.

Sample forms, further details on the insurance provisions in the new law and directions to commands administering the program are contained in BuPersInst 1741.3B.

"Medium or rare?"

We'll Bet This Is a New High In Shipping Over Records

Here's a man who was really "high" when he shipped over.

He's H. R. Johnson, AMC (AP), USN, who was reenlisted while piloting an R5D, 5000 feet above the Naval Air Station at Glenview, Ill. At the end of this four-year hitch the veteran enlisted pilot will have completed 21 years of service.

The chief underwent flight training as a second class petty officer and was advanced to AM1 while still in training. In 1943 he was assigned to training bombardier-navigators at Pensacola, Fla., and from 1951 to 1953 he served with Air Transport Squadron 24 at Port Lyautey, French Morocco.

LT J. D. Langford, USN, Recruiting Officer on the Staff of the Chief of Naval Air Reserve Training, swore in Johnson during the airborne ceremony.

QUIZ AWEIGH ANSWERS

QUIZ AWEIGH IS ON PAGE 53

1. (a) F8U Crusader.
2. (b) 1015 mph.
3. (c) Guided missiles.
4. (b) 1500 mph.
5. (c) CVHA 1.
6. (c) Marines and helicopters.

Senior Petty Officers Meet to Discuss Navy's Career Problems

History recorded another first when at Bainbridge, Md., and San Diego, Calif., some 220 senior petty officers stood up on their feet and said precisely what they thought about the Navy and where it could be improved.

It wasn't just a gripe session—no novelty to history. The men had gathered officially to make recommendations concerning steps to be taken to make the Navy career more attractive to enlisted men and their families.

The meeting was held at the invitation of the Secretary of Defense. So far as is known, this is the first time in the history of the Navy in which representatives of enlisted men were officially asked to make recommendations concerning their own status.

More than 140 were selected by their own commands as delegates on the basis of their own individual experience, personal character, leadership, technical qualifications and familiarity with the opinions of other enlisted men.

In addition, some 60-plus NavCATs—members of Navy Career Appraisal Teams—were individually invited to attend.

More than 3000 years of service in the Navy was represented. Members averaged some 13 years' service apiece, although many had more than 20 years' active duty behind them and a few were serving their first hitch. Each individual represented some 5000 other enlisted men.

Each of the Navy's 61 ratings was represented by at least one delegate. He was either a second class, first class or chief petty officer.

The discussions ranged from such concrete problems as military pay and the problems of Navy life to such less tangible factors as the prestige and status of the enlisted man.

One of the more controversial questions raised was the wisdom of paying men in technical specialties, such as electronics or radar, more money than men in other, less critical, specialties.

Except for guidance provided by the Head of the BuPers Career Activities Branch, the meetings were strictly enlisted. Suggested topics were presented by the career men and those that required detailed study were turned over to panels of 10 to 12 delegates for study. When the panels came to an agreement, the results were read to the assembled delegates for an all-hands discussion period and comments. Each panel chairman was allowed 15 minutes to present his group's findings and each presentation was followed by a limited discussion period.

So after the meetings were held, what happens?

(The meetings were held at the request of the Secretary of Defense to provide data for the Defense Advisory Committee on Professional and Technical Compensation — better known as the Cordiner Committee. Similar enlisted career conferences were held by the Army, Air Force and Marine Corps.)

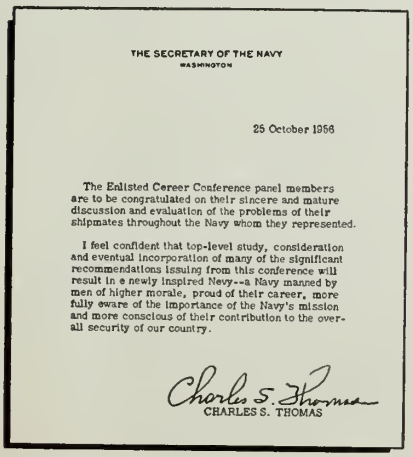
As a result of the Navy's two conferences—which covered a total of six days—a joint report numbering more than 450 pages, including a 100-page summary, was submitted to the Cordiner Committee.

This lengthy report contained more than 506 recommendations covering more than 20 different subjects ranging from pay and housing to training and the importance of leadership.

However, not only is the Cordiner Committee giving these recommendations serious study but the Navy itself, in an independent action, is also making use of the conclusions in an effort to strengthen favorable aspects of a Navy career and to correct the shortcomings reported by the career conferences.

These recommendations are receiving the direct and personal attention of the Secretary of the Navy, the Chief of Naval Operations and the Chief of Naval Personnel. They are mapping plans for carrying out many of the recommendations within the Navy's jurisdiction.

The letters shown below represent the importance attached to the Enlisted Career Conference panels. These letters, by three of the top Navy leaders, praise the Conference, its results, and the excellent reports submitted by career Navymen making up the panels. The reports have been given to a Defense Department Committee.



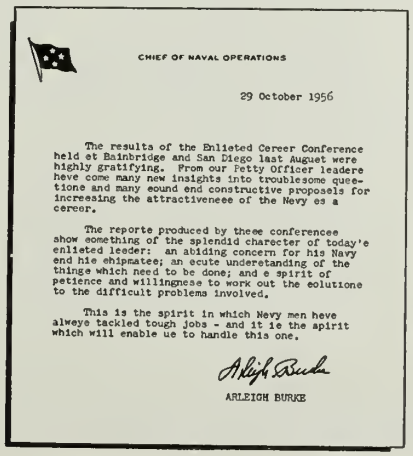
THE SECRETARY OF THE NAVY
WASHINGTON

25 October 1956

The Enlisted Career Conference panel members are to be congratulated on their sincere and mature discussion and evaluation of the problems of their shipmates throughout the Navy whom they represented.

I feel confident that top-level study, consideration and eventual incorporation of many of the significant recommendations issuing from this conference will result in a newly inspired Navy--a Navy manned by men of higher morale, proud of their career, more fully aware of the importance of the Navy's mission and more conscious of their contribution to the overall security of our country.

Charles S. Thomas
CHARLES S. THOMAS



CHIEF OF NAVAL OPERATIONS

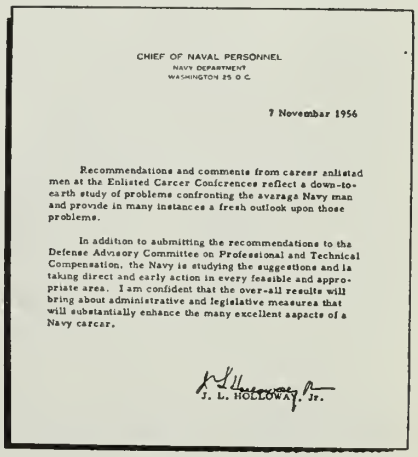
29 October 1956

The results of the Enlisted Career Conference held at Bainbridge and San Diego last August were highly gratifying. From our Petty Officer leaders have come many new insights into troublesome questions and many sound and constructive proposals for increasing the attractiveness of the Navy as a career.

The reports produced by these conferences show something of the splendid character of today's enlisted leader: an abiding concern for his Navy and his shipmates; an acute understanding of the things which need to be done; and a spirit of patience and willingness to work out the solutions to the difficult problems involved.

This is the spirit in which Navy men have always tackled tough jobs - and it is the spirit which will enable us to handle this one.

Arleigh Burke
ARLEIGH BURKE



CHIEF OF NAVAL PERSONNEL
NAVY DEPARTMENT
WASHINGTON 25 D C

7 November 1956

Recommendations and comments from career enlisted men at the Enlisted Career Conferences reflect a down-to-earth study of problems confronting the average Navy man and provide in many instances a fresh outlook upon those problems.

In addition to submitting the recommendations to the Defense Advisory Committee on Professional and Technical Compensation, the Navy is studying the suggestions and is taking direct and early action in every feasible and appropriate area. I am confident that the over-all results will bring about administrative and legislative measures that will substantially enhance the many excellent aspects of a Navy career.

J. L. Holloway, Jr.
J. L. HOLLOWAY, JR.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 49 — Announced approval by the President of the report of a selection board which recommended USMC officers for temporary promotion to grade of lieutenant colonel.

No. 50 — Announced the convening of a line selection board to recommend USN and USNR officers on active duty for temporary promotion to the grade of lieutenant.

No. 51 — Concerned with the procurement of non-stock items, it modifies Alnav 23.

No. 52 — Announced that billets for NROTC program were still open and repeated the deadline date for applications.

No. 53 — Modified BuPers Inst. 1520.15C, concerned with officers' post-graduate educational program.

No. 54 — Announced approval by the President of the reports of selection boards which recommended USN and USNR officers to grade of Captain in Medical Corps, Supply Corps, Dental Corps and Medical Service Corps, of Commander in Medical Corps, Supply Corps, Chaplain Corps, Civil Engineer Corps, Dental Corps, Medical Service Corps and Nurse Corps.

No. 55 — Announced approval by the Secretary of the Navy of a selection board which recommended warrant officers of the Marine Corps for promotion to Chief Warrant Officer, W-4 (permanent), Chief Warrant Officer, W-4 (temporary), Chief Warrant Officer, W-3 (permanent), Chief Warrant Officer, W-3 (temporary), Chief Warrant Officer, W-2 (permanent), and Chief Warrant Officer, W-2 (temporary).

No. 56 — Announced the commissioning of Enlisted Personnel District of Pacific and requested that all messages concerned with assignment and distribution of enlisted personnel of that area be revised.

No. 57 — Described general provisions of care to be provided from civilian sources under the Dependent Medical Care Act, effective 7 Dec 1956.

Instructions

No. 1000.7A — Lists sources of information pertaining to the programs and opportunities available to naval personnel.

No. 1120.12E — Outlines eligibility requirements and processing procedures whereby certain Naval Reserve and temporary officers in the grades of ensign through lieutenant may be considered for appointment as permanently commissioned USN officers.

No. 1120.22B — Announces procedures for the administration of active-duty agreements for USNR officers and invites applications from eligible officers who desire such agreements.

No. 1336.2B — Sets forth the procedures by which enlisted personnel may request enrollment in the Naval School of Music and includes information regarding the courses of instruction available.

No. 1440.18 — Establishes a program for the adjustment of the enlisted rating structure through formal school training and through in-service training.

No. 1510.69A — Outlines a program for advanced technical education and training of enlisted personnel and describes procedures to be followed in nominating those qualified for participation in the Navy Enlisted Advanced School program.

No. 1520.2A — Sets forth the procedures to follow in the case of a naval officer enrolled under the provisions of one of the college training programs who does not maintain a satisfactory academic standing.

No. 1520.20A — Establishes eligibility requirements and invites applications for heavier-than-air flight training from commissioned officers and officer candidates.

No. 1520.51 — Submits to commandants in the continental U. S. information in the form of a planning guide to aid in the training of naval officers at the Postgraduate School in the event of mobilization.

No. 1530.21B — Furnishes information as to the disposition of naval enlisted personnel who qualify and are accepted for appointment to the U. S. Military Academy, U. S. Air

Christmas Leave

Each year, within the bounds of national security and the maintenance of essential services, it is the Navy's policy to grant leave to as many men as possible in order that they may spend the Christmas holidays with their families.

The Navy not only authorizes leave, but in many cases it makes arrangements with civilian agencies for special trains, planes and buses to transport naval personnel to and from their homes.

Such arrangements are usually made each year at the Naval Training Centers at San Diego, Great Lakes and Bainbridge. This year, for example, NTC Bainbridge will grant holiday leave to more than 7000 bluejackets. This includes 3800 recruits, 500 company commanders and instructors, 800 students from the service school command, and 1900 members of the Center's staff.

Four special trains—two heading North and two South—and more than 30 buses, have been scheduled for the mass exodus of Navymen scheduled for Saturday, 22 Dec. Many of the special buses and trains will depart directly from the training center. In addition, a fleet of 16 shuttle buses will whisk those traveling on regular scheduled lines to nearby entraining points.

The Chief of Naval Personnel has declared the period from Saturday, 22 Dec, through Sunday, 6 Jan, as a holiday period for all training activities under his control. During this period, training commanders have been authorized to suspend training and grant leave. Persons not going on leave, however, will be given a modified or supplementary course of instruction.

Other naval and marine commanders, both ashore and afloat, are also encouraged to grant leave during the holiday period.

Force Academy or U. S. Coast Guard Academy.

No. 1533.14B — Standardizes procedures for submission of applications and the reporting system for recommending prospective NROTC graduates for appointment to commissioned grade.

No. 1741.3B — Provides information contained in Public Law 881, 84th Congress, which applies to government insurance available to military personnel on active duty or at time of separation, including retirement.

No. 1926.2A — Provides information concerning the retention and involuntary release of Naval Reserve officers.

Notices

No. 1520 (25 September) — Provided information concerning the Gunnery Officers (Administrative) course at Great Lakes, Ill.

No. 1410 (4 October) — Announced interim qualifications for advancement to pay grade E-4 for for use in the November 1956 servicewide examinations for certain selected emergency service ratings.

No. 1120 (5 October) — Announced Change No. 1 to BuPers Inst. 1120.27, which is concerned with the nursing education program.

No. 1085 (8 October) — Provided information on the availability and effective date of Record of Practical Factors (NavPers 760) for certain ratings.

No. 1571 (10 October) — Commented on various aspects of the administration of active duty for training.

No. 1120 (16 October) — Announced names of candidates to be considered for appointment to warrant and commissioned grade by a selection board to be convened in February by the Secretary of the Navy.

No. 1416 (16 October) — Announced Change No. 1 to BuPers Inst. 1416.1B, which is concerned with professional fitness for promotion of officers.

No. 1306 (18 October) — Announced Change No. 1 to BuPers Inst. 1306.22B, which is concerned with enlisted personnel assigned to duty as instructors.

No. 5050 (18 October) — Announced annual conference for review of postgraduate program.

WHAT'S IN A NAME

Tonnage

Whenever you see your ship's "vital statistics" you'll find *displacement* listed right along with her length, beam and armament. This figure, indicating the weight of water she actually displaces, either when fully loaded or when "light," is a special part of a series of weights and measures known to the martime world as tonnage.

Tonnage nowadays is used to mean a number of things related to the carrying capacity or weight of a merchant ship, the whole amount of a nation's shipping, perhaps, or the total amount passing through a canal, entering a particular port, or controlled by a single steamship line.

The word *ton* is a variant of *tun*, and comes from the old Anglo-Saxon word *tunne*, meaning a large cask or vessel. According to one authority, *tunnage*, an older form of today's tonnage, "appears to have been used in the 16th century for indicating a ship's hold capacity for carrying tunnes (later tuns) of wine. The tun, or cask of 252 old English wine gallons with its contents, closely approximated the long ton weight, 2240 pounds, and it occupied a space of nearly 40 cubic feet (the volume of one measurement ton). Hence the relationship of the ton burden and the shipping ton."

In addition to the *long* ton and the measurement ton, there is the 2000-pound *short* ton and the *register* ton, the latter being a unit of volume (100 cubic feet) used for calculating such things as dry-dock charges and earning power of a ship.

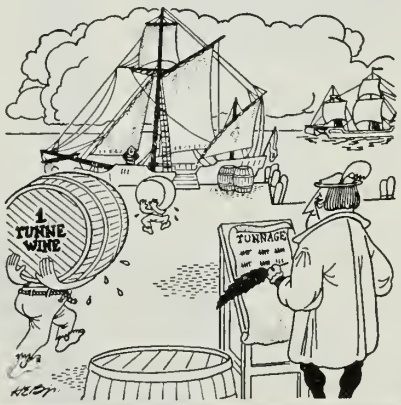
Perhaps the earliest U. S. rules for measuring ship tonnage were established by Act of Congress in 1799. This Act provided that tonnage should be ascertained as follows: "From the extreme length (of the ship) in feet deduct three-fourths of the breadth; multiply the remainder by the breadth and this product by the depth; divide the last product by 95 and the quotient will be the register tonnage." In this rule the depth of a double-decked vessel was arbitrarily assumed as one-half the breadth, so that it was to the advantage of a shipowner to build ships without much regard to the effect of the deepening upon other qualities.

A somewhat similar rule was used by the English, and is still sometimes used in measuring yachts and other pleasure boats. Then, in 1835, the English adopted Newton's theorem for the determination of a considerably better system based on contents of solids bounded by irregular surfaces. They followed this with the Merchant Shipping Act of 1854, which laid down an even more complicated (but even more accurate) system to determine the register tonnage or net register tonnage.

This latter system (with minor changes) was adopted for U. S. use by an Act of Congress of 6 May 1864, and went into effect on 1 Jan 1865. Subsequent Acts made American practice almost identical with the English system.

Here, with their meanings, are the four most common ways to express tonnage:

- *Gross* tonnage is the entire cubic capacity of a ship, or the total internal cubic measurement of the number of register tons (units of 100 cubic feet) contained within the ship's hull, less such spaces as those in which no fuel, cargo, or stores are carried.
- *Net* tonnage, or net register tonnage is derived from the gross tonnage by deducting the total cubic feet of such spaces as crew's quarters, storerooms, chart-room, passenger spaces and an allowance for the ship's populsion spaces. The resulting tonnage figure is that upon which dues or taxes are usually charged, and also offers a basis for estimating a vessel's available cargo space or bulk capacity.
- *Deadweight* tonnage (or tons "burden") is derived from the displacement of a vessel, and indicates that the craft in question is capable of carrying a load of a certain number of tons of 2240 pounds—or long tons.
- *Displacement* tonnage may be of two types, "light" or "loaded." For merchant ships, light displacement is commonly the weight in long tons of a vessel without anything except her equipment on board; the Navy uses a light displacement (indicated in long tons) which is figured after a vessel is ready for service in every respect, with permanent ballast in place and liquids in machinery at operating levels. Consummable stores, crews and their gear, and aircraft are not included, however.



Selective Emergency Service Rates Expanded for Regulars In Grades E-2, E-3, E-4

More rates have been added to the list of Selective Emergency Service rates which have been activated for Regular Navy enlisted personnel. These selective emergency service rates will be used to identify Regular Navy personnel in pay grades E-2, E-3 and E-4.

It should be noted that as a result of this program, advancement to petty officer third class will NOT be effected in the general service rating after any selective emergency service rates, related to the general service rating, have been activated for USN personnel.

For example, a Regular Navyman in pay grade E-3, who is a striker for the aviation machinist's mate rating (AD), will advance to either ADJ3 or ADR3. The man may not advance to AD3 nor to the emergency service rate of ADP3 (Aviation Machinist's Mate, Propeller) since ADP has not been activated as a selective emergency service rate.

(Naval Reserve personnel are not affected by this program since they will be examined and promoted in their respective emergency service ratings as before.)

In addition to the Selective Emergency Service Rates which have already been activated, here are the other ratings which have been opened at pay grade E-4 to Regular Navy personnel:

- Under *Aviation Ordnanceman*: Aviation Ordnanceman B (Utility); Aviation Ordnanceman T (Turrets).
- Under *Aviation Boatswain's Mate*: Aviation Boatswain's Mate U (Utility); Aviation Boatswain's Mate G (Gasoline Handler).
- Under *Aviation Electrician's Mate*: Aviation Electrician's Mate M (Electrician); Aviation Electrician's Mate I (Instrument Repairman).
- Under *Aviation Structural Mechanic*: Aviation Structural Mechanic S (Structural Mechanic); Aviation Structural Mechanic H (Hydraulic Mechanic).

The first service-wide examinations for advancement in these rates will be for AEM3 and AEI3, held on 16 Nov 1956. The first service-wide examination for advancement to AOU3, AOT3, ABU3, ABG3, AMS3 and AMH3 will be conducted in February 1957. Date for the first examinations for advancement to ATR3, ATS3, and ATN3 is in May 1957.

The revised list of Selective Emergency Service rates which have been activated for Regular Navy personnel is contained in BuPers Notice 1223 of 31 Aug 1956. The instruction which established the SESR Program, BuPers Inst. 1223.1 remains in effect as changed by the latest notice.

Midwatch Log Hails the New Year

In accordance with a fine old custom, personnel who hold the final watch of the year are accorded the doubtful privilege of writing up the ship's log in rhyme. To encourage this practice ALL HANDS has, from time to time reprinted excerpts considered to be representative of those submitted. This year, however, we are presenting in its entirety, with but minor revisions, the literary efforts of LTJG Arthur R. Evans, of the midwatch of USS *Baltimore* (CA 68) as a good sample of midwatch log.

I had been on watch but a little while,
When I spied a babe, dressed in just a smile.
Who was marching down the Twenty-first Pier,
Singing and shouting "Happy New Year."
He was met by an Old Salt bent over with gout
Who muttered "Welcome aboard. I'm on the way out."
"Listen closely, my boy, for I'm not too well,
And I'll be gone when they sound the bell.
We're moored portside to the Twenty-first Pier,
And all of Mare Island knows that we're here.
With standard lines out and each one doubled,
The wind and the tide should give you no trouble.
You must know your neighbors before it's too late.
There's Mount Olympus, *AGC-8.*
And many fine ladies of Pacific Fleet,
Whom, when you're older, you'll certainly meet.
We're getting service from the pier as you know,
And condition Yoke is set, third deck and below.
On second deck and above, Xray is set,
Keep your powder dry and gauge glasses wet."
The New Year said "I relieve you of command,"
Then saluted the Old Salt and shook his hand.
The church bells sounded, it was New Year, all right,
And the good old model vanished from sight.
Thank God for your blessings, the big and the small,
And a Happy New Year for one and for all.

New Regulations Established For Sending Official Mail

Gone are the days of stamp-licking and the use of franked envelopes for official Navy mail.

The Navy abolished the practice of affixing postage stamps and the use of franked envelopes bearing the penalty indicia statement on 1 Oct 1956. Marine Corps activities will follow suit on 1 Jan 1957.

Replacing the penalty indicia statement and postage stamps on the upper right hand corner of envelopes, cards, labels, tags and wrappers used to transmit official mail will be the printed statement "Postage and Fees Paid, Navy Department."

All mailing covers will also bear

in the upper left hand corner, under the return address, the printed statement "Official Business." These statements cannot be handwritten. They are to be printed either by a hand stamp or typewritten until printed covers can be obtained.

The new requirements apply to official mail transmitted within, among, and between the United States, its territories and possessions, Army-Air Force APOs and Navy FPOs. Mail to foreign countries will continue to require affixed postage.

Current supplies of envelopes and labels bearing the penalty indicia may be used until exhausted on all classes of official ordinary mail weighing less than four pounds. Mail over four pounds sent with the penalty indicia must be endorsed "Postage and Fees Paid, Navy Department."

Mail requiring special services, such as air mail, special delivery, registered, etc., will be endorsed appropriately on the address side of the cover and also bear the impression "Postage and Fees Paid, Navy Department."

Present style air mail envelopes should continue to be used but must bear the fee paid statement instead of stamps.

SecNav Inst. 27100.1D gives complete details on how commands should dispose of postage stamps they currently have on hand. It also contains information as to how the Post Office Department will be reimbursed for official Navy mail.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distributions began in October.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan.

The Tall Men (629) (C) (WS): Western Drama; Clark Gable, Jane Russell.

Earth vs the Flying Saucers (630): Science-Fiction; Hugh Marlowe, Joan Taylor.

The Mountain (631) (C): Drama; Spencer Tracy, Robert Wagner.

Apache Ambush (632): Western; Bill Williams, Adelle August.

The Man With the Golden Arm (633): Drama; Frank Sinatra, Eleanor Parker.

Love Is a Many Splendored Thing (634) (C) (WS): Drama; William Holden, Jennifer Jones.

World Without End (635) (C): Science Fiction; Hugh Marlowe, Nancy Gates.

Comanche (636) (C): Drama; Dana Andrews, Linda Cristal.

The Secret of Treasure Mountain (637): Melodrama; Valerie French, William Prince.

The Rack (638): Drama; Paul Newman, Walter Pidgeon.

The View From Pompey's Head (639) (C) (WS): Drama; Richard Egan, Dana Wynter.

Francis In the Haunted House (640): Comedy; Mickey Rooney, Virginia Welles.

Davy Crockett, King of the Wild Frontier (641) (C): Action Drama; Fess Parker, Buddy Ebsen.

Behind the High Wall (642): Drama; Tom Tully, Sylvia Sydney.

Tribute To a Bad Man (643) (C): Western Drama; James Cagney, Irene Pappas.

Selections of Promotions To CDR and CAPT Announced

The selection of 307 Regular Navy and Naval Reserve commanders and lieutenant commanders of the various staff corps on active duty for temporary promotion to captain and commander has been approved by the President.

Lieutenant commanders selected for temporary promotion to commander are: Civil Engineer Corps, eight; Dental Corps, 17; Supply Corps women, one; Chaplain Corps, 14; Nurse Corps, seven; Medical Service Corps, 13; Medical Corps, 43; Supply Corps, 66; Limited Duty Only, Supply Corps, one.

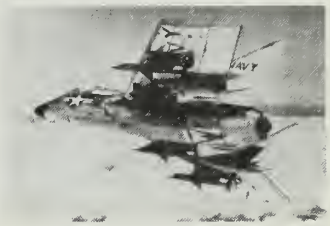
Commanders selected for temporary promotion to captain are: Dental Corps, 29; Chaplain Corps, four; Supply Corps, 45; Medical Service Corps, four; Med Corps, 55.

QUIZ AWEIGH

1. This jet fighter recently set a new American speed record. The aircraft is the (a) F8U Crusader (b) F7U Cutlass c) F4D Skyray.

2. The jet aircraft can land aboard a carrier at a speed of 150 mph. This relatively slow speed is a world of difference compared to the speed record which the plane set, which was slightly over (a) 950 mph (b) 1015 mph (c) 1085 mph.

3. Here's another picture of a carrier jet fighter now in operation by the Fleet. Mounted under its wings are (a) auxiliary gas tanks (b) rockets (c) guided missiles.



4. If you answered the above correctly, you'll also know that the name of the above item is Sparrow *I*. Powered by a rocket engine, the Sparrow *I* can, in a few seconds after launching, reach a speed greater than (a) 2000 mph (b) 1500 mph (c) 2850 mph.

5. The above carrier is USS *Thetis Bay*. Formerly designated CVE 90, the ship underwent extensive modification and is now designated (a) CVS 1 (b) CVA 12 (c) CVHA 1.

6. Assigned to the Pacific Fleet, *Thetis Bay* will help introduce a new phase in naval warfare. Her main mission will be to carry (a) army troops and helicopters (b) vertical take-off aircraft (c) marines and helicopters.

If you have trouble with the answers, you'll find them on page 48.

Applying Current Facts to Use of Your Appliances Overseas

TRAVEL ORDERS FOR DUTY overseas frequently mean a thorough analysis of your personal possessions and household goods from the aspect of durability and usefulness in your future home. Not much point in carrying for thousands of miles items which will be neither appropriate nor useful.

Electrical appliances are a case in point. You may have a heart-warming array of gadgets and labor-saving machinery all of which is suitable for stateside use, but there is no assurance that they may be equally valuable in Paris, Guam or Yokosuka. Here are a few words of advice concerning the use of such equipment overseas:

First of all, get the basic facts about the characteristics of electric current in the country where the appliance is to be used. You should know the cycles, voltage, number of wires, and number of phases of the power supply; whether or not there is any restriction as to power consumption; and the stability of the current. If you are thinking in terms of an electric washer, you should determine the availability of hot water and the water pressure.

Here in the United States we normally have 115/230 volt, 60 cycle, three wire, single phase systems, without a power restriction on the 230-volt line. In general, appliances that are rated on the nameplate at a voltage within 110 to 125 or 220 to 240 will operate satisfactorily on any voltage within these ranges. In most other countries, the power supply differs in some, if not all, of these characteristics and many countries have power restrictions and oftentimes a fluctuating current. Because of the difference in power supply, some American concerns produce appliances especially engineered and manufactured for operation overseas.

How about a transformer? A transformer will do nothing more than step up or step down the voltage, and has no effect on the difference in cycle frequency. A transformer's use should be limited, for economy reasons, to equipment of comparatively low wattage consumption.

The difference between the domestic 60 cycle and the 50 cycle current in common use abroad presents a problem. When 60 cycle machines are operated on 50 cycle, all appliances with timing mechanisms, or operated by motors, will run slower and longer for any given setting. On some machines, the motor, solenoids and timing devices may burn out.

"We went sailing and he ran out of wind."

Here's a rundown on what to expect:

• *Refrigerators and Food Freezers.* The better refrigerators and food freezers manufactured in the United States are built for 115 volts and will operate on either 50 or 60 cycles. Small transformers of 350 to 500 watts are sufficient to compensate for use on foreign voltages from 100 to 260 volts.

• *Electric Ranges and Hot Water Heaters.* An electric range is not suitable for use overseas unless power at about 220 volts is available, and unless no limitation exists as to power consumption. It may be advisable to have a range to suit the foreign power specifications wired in the United States by the manufacturer or by a dealer who has the manufacturer's drawings and wiring diagrams, rather than to attempt such an adjustment in the foreign field.

• *Automatic Washers and Dishwashers.* It is important that a 50 cycle machine be used in 50 cycle territory. Use of a domestic 60 cycle machine on 50 cycle might result in burning out the motor as well as improper operation of timing mechanisms. If either of the appliances is to be purchased for use both here in the States and later in a 50 cycle area, then it is recommended that a 50 cycle machine be purchased at the outset. When the 50 cycle machine is operated at 60 cycles, there is less chance of burning out the motor; however, under heavy load conditions some extension of the washing cycle may be desirable since the frequency difference will cause a shorter cycle than the setting on the timer.

• *Automatic Dryers.* Again the problem of power consumption should be considered, as most dryers have high power consumption. The majority of dryers can be adapted for operation on either 115 or 230 volts by a simple connection within the machine, and the motor is adequate for operation on either 50 or 60 cycles.

• *Food Waste Disposers.* These appliances are built for 120 volts, and the motors will operate on either 50 or 60 cycles. Where the power supply is about 220 volts, a step-down transformer should be used.

• *Room Air Conditioners.* Only a few models are built for operation on either 50 or 60 cycle without modification. The majority, which are manufactured for 60 cycle, can be modified to operate on 50 cycle by the addition of protective devices. The one-half horsepower models are built to operate on 115 volts, the three-quarter are available in either 115 or 230 volts, and the one horsepower and above units on 230 volts.

• *Heating Devices,* like irons, toasters, waffle irons, coffee makers, etc. Because of the high wattage consumption, it is cheaper to buy a heating device especially wired for the 220 volt circuits prevalent in most other countries than to purchase an expensive and relatively heavy transformer to make possible the use of 115 volt appliances.

• *Fans, Mixers, and Vacuum Cleaners.* Frequently, these appliances are available with 220 volt ratings. However, transformers can be used to adapt these specific household items already in your possession to the 220 volt circuits abroad. But in the case of the vacuum cleaner, it is more practical to buy a 220 volt machine than to use a heavy transformer which must be carried around with the cleaner.

• *Automatic Blankets.* Special 50 cycle controls are available as well as

specifically constructed transformers to adapt domestic blankets for operation on 220 volt, 50 cycle circuits.

- *Clocks.* It is essential that clocks be purchased specifically or adapted for 50 cycle operation.
- *Radios.* Short-wave radios are available and recommended for use abroad.
- *Phonographs and Tape Recorders.* These must be adapted for 50 cycle. Transformers are available for voltage changes.
- *Television.* Think twice before you take your television set abroad. In the first place, you can anticipate a charge of about $100 for modification of a TV set of United States origin. In addition, installation costs vary according to conditions but you can anticipate an expenditure of about $35. Then, when you return to the States, it will be necesary to re-modify the set. With one exception, TV sets purchased in Europe are quite expensive and cannot be used Stateside. The TV situation is different in Germany. Not only is the cost of modification less (about $25) but the sets are provided with a switch so that the set need not be re-modified upon your return to the States.

In any event, be sure that your set will operate properly on the foreign power supply.

The characteristics of the electric services available in many of the foreign cities can be determined from a publication entitled *Electric Current Abroad,* published by the U. S. Department of Commerce, which can be purchased from the Superintendent of Documents, Government Printing Office, Wash. 25, D. C. for 20 cts.

Fleet-Based Medics May Be Ordered to TAD Ashore To Serve Navymen, Dependents

Medical officers assigned to certain ships and other Fleet units are now being used at shore installations on a temporary duty basis where such assignment results in better utilization of their service. This action was decided upon by the Chief of Naval Personnel and the Chief of the Bureau of Medicine and Surgery as a step in alleviating problems brought about by the reduction in the number of medical officers authorized for the Navy, versus the continuing need for medical services by Fleet and shore-based personnel and their dependents.

It has been determined that the services of medical officers attached to certain types of ships and commands can be used to better advantage at shoreside naval hospitals and dispensaries when their ships are operating in the vicinity of Stateside ports. Accordingly, medical officers assigned to destroyer division and squadron staffs and to AGB, AVP, ARG, AVS and AKA type ships will be given additional duty at medical facilities in the same metropolitan areas as that in which the ship is homeported or in the vicinity in which the ship normally operates.

Medical officers assigned to types of vessels or units other than those indicated above may also be assigned either full time or part time TAD with shore medical facilities, when such duty does not jeopardize the basic military readiness of Fleet units. Commanders in chief and senior officers present, in coordination with district commandants, may issue such orders when practical and needed.

BuPers Inst. 1301.26 outlines the implementing action to be taken.

Officer Correspondence Course In Airplane Power Plants

The officer correspondence course, ***Airplane Power Plants*** (Navpers 10961-A), is now available at the Naval Correspondence Course Center. This course replaces *Reciprocating Aircraft Engines,* NavPers 10961. Wherever the latter is listed as a professional requirement for promotion of USN, USNR, or USN(T) officers, the new course is acceptable as meeting that same requirement.

NavPers 10961-A consists of eight assignments, and is evaluated at 16 points credit for purposes of Naval Reserve promotion and retirement. Personnel who completed the earlier course will receive additional credit for Navpers 10961-A if they are otherwise eligible to receive credit in this subject.

Application for enrollment should be made on form NavPers 992 (Rev 10/54 or later), forwarded via official channels.

Overseas Living Conditions

If you're due for an overseas transfer and planning to take your family along it's a good idea to find out beforehand what you can expect in the way of housing, climate, schools, stores, food and all the other things that go under the general heading of living conditions.

The Bureau makes that information easy to obtain through a series of handy pamphlets that include practically everything you'll need to know about your new overseas station. To get one, all you have to do is write to the Chief of Naval Personnel (Attn: Pers G221), Navy Department, Washington 25, D. C., requesting one copy of the appropriate booklet. Here's the latest list of the overseas locations covered.

Alaska (Adak and Kodiak)
Antigua, B. W. I.
Azores
Bahrain Island, Persian Gulf
Belgium
Bermuda
Brazil
Chichi Jima, Bonin Islands
Cuba (Guantanamo Bay)
Denmark (Copenhagen)
Eleuthera Island
England (London)
Eritrea (Asmara)
France (Paris)
French Morocco (Port Lyautey)
Germany
Greece (Athens)
Hawaii
Iceland
Ireland (Londonderry)
Italy (Rome, Naples and Leghorn)
Japan (Yokosuka, Tokyo, Sasebo and Iwakuni)
Malta
Mariana Islands (Guam and Saipan)
Marshall Islands (Kwajalein)
Mediterranean Area (Sixth Fleet)
Midway Island
Newfoundland (Argentia)
Norway (Oslo)
Nova Scotia (Shelburne)
Okinawa
Panama Canal Zone
Philippine Islands (Sangley Point and Subic Bay)
Portugal (Lisbon)
Puerto Rico
Spain (Barcelona, Madrid and Rota)
Taiwan (Formosa)
Thailand (Bangkok)
Trinidad, B. W. I.
Turkey
Vietnam (Saigon)

Besides these, there is a pamphlet on living conditions in Washington, D. C.

Permanent USN Appointments Continued in Augmentation Program for LTs and Below

The Navy's "augmentation program," whereby certain Naval Reserve and temporary officers not above the grade of lieutenant may be considered for appointment to permanently commissiined USN officers, is scheduled to continue in somewhat revised form.

The changes, as described in BuPers Inst. 1120.12E, will:

- Eliminate the procurement of Regular Navy medical, dental and all restricted line officers, except Special Duty (Law) officers under this program.
- Eliminate the restrictive period (formerly 12 months) in which an officer released to inactive duty may apply.
- Promulgate new dates of rank for certain officers.
- Provide for constructive credit for Special Duty (Law) officers.

Those eligible are:

- Men line (11XX) officers not above the grade of lieutenant with a date of rank of 1 Jul 1953 and junior.
- Men line (13XX) officers not above the grade of lieutenant with a date of rank of 1 Aug 1955 and junior, except aviation ground (1355) lieutenants, who may apply for appointment to the line (1100) or staff categories for which they may qualify.
- Medical Service Corps (2300) officers not above the grade of lieutenant with a date of rank of 1 May 1952 and junior.
- Officers of the Chaplain Corps (41XX) and Nurse Corps (29XX), not above the grade of lieutenant.
- Men Supply Corps (31XX) and Civil Engineer Corps (51XX) officers not above the grade of lieutenant with a date of rank of 2 Jul 1954 and junior.
- Women line (11XX) and Supply Corps (31XX) officers not above the grade of lieutenant, junior grade.
- Reserve officers with at least one and one-half years of sea experience not above the grade of lieutenant with a date of rank of 2 Jul 1954 and junior, qualified for transfer to the restricted line as Special Duty (Law) officers (designator 1620).

You must also be a citizen of the United States and have completed six months' active service as a commissioned officer. Officers who have been released to inactive duty are eligible.

There are no dependency restrictions for men but, in general, a woman will not be eligible for consideration if she is responsible for the care of a child under 18.

Personnel of the Medical Service Corps, Chaplain Corps, Civil Engineer Corps, Nurse Corps and Special Duty officers (Law) must meet certain professional requirements which are defined in considerable detail in the Instruction. No other formal educational requirements are specified but it should be understood that officers recommended for appointment will be required to compete with their USN contemporaries and should be of relative age and possess a similar educational background.

Men officers must be of an age so that their total active service will equal at least 20 years by the time they have reached the age 62; (women officers, by the time they have reached the age 50). Personnel will not be eligible for retirement within three years after appointment.

WAY BACK WHEN

USS Cyclops

On 7 Nov 1910, USS *Cyclops*, a collier, was commissioned at Philadelphia, Pa. A sister ship, USS *Jupiter*, was launched two years later at Mare Island, Calif.

As many Navymen know, *Jupiter* later became USS *Langley*, the Navy's first aircraft carrier. *Cyclops* remained a collier, but what became of her will probably never be known for during World War I she apparently sailed off the face of the earth.

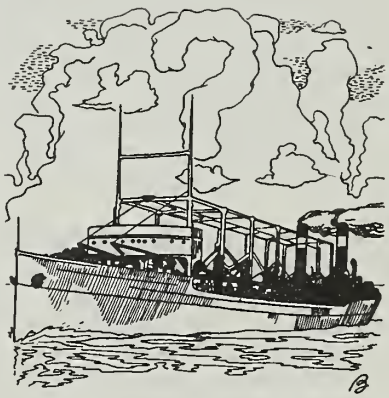
The story of *Cyclop's* last cruise began routinely enough on 9 Jan 1918, when she was detached from the Train of the Atlantic Fleet and assigned to the Naval Overseas Transportation Service. At that time she was in Hampton Roads, Va., taking on a 9960-ton cargo of coal. When the loading was completed she sailed for Bahia, Brazil.

She reached Bahia on 22 January, discharged her cargo and moved on to Rio de Janeiro, where she took on a number of passengers, including the U. S. consul for that city. She also loaded 10,800 tons of manganese ore.

When *Cyclops* shoved off from Rio on 16 February there had been absolutely nothing out of the ordinary about the voyage. Her next stop was Barbados, B. W. I, where she picked up bunker coal on 3 March. The following day she headed for Baltimore, Md., where she was due on 13 March.

But then the routine ended in what the Secretary of the Navy, Joseph Daniels, called "the most baffling mystery in the annals of the Navy."

Without a single clue the ship seemed to vanish into thin air after she left Barbados, and neither she nor her 309 crew members and passengers were ever seen or heard from again.



Although she had radio, no distress signal was ever picked up from the seagoing workhorse. The only hint of anything wrong was the fact that she'd been having trouble with one of her engines, but even if both had been disabled she still could have called for help.

Despite a long and exhaustive search of the Caribbean and South Atlantic, no trace of the collier was ever found—no wreckage, no sightings by other ships—nothing.

At first it was thought that the ship must have been the victim of an enemy submarine or mine. However, when German sources were checked after the war, that theory had to be thrown out, because it was definitely established that there were no U-boats or enemy mines in the area.

Since then, various explanations of the disappearance have been advanced. None of them have ever been accepted as satisfactory.

Was she lost in a storm? Was she sabotaged? Or, is she still drifting at sea as an unfound derelict?

Maybe someday you can find the answer.

You must meet the physical standards appropriate to your grade, as established by BuMed. Minor defects, which do not interfere with satisfactory performance of duty, will not be considered disqualifying.

Applications may be submitted to the Chief of Naval Personnel (Attn: Pers B625) at any time for consideration by a continuing selection board. Again, details of the material which should accompany your letter of application are listed in the Instruction.

Officers not selected for augmentation cannot reapply for at least 12 months.

Navyman Meets Giraffe on Scientific Safari

Does a giraffe have to have high blood pressure to keep blood flowing uphill to his head? If so, what keeps him from blacking out when he bends down to drink water?

Morris H. Smith, Jr., HM3, USN, has just returned from South Africa with a scientific "safari" sent there to find the answers to those and similar questions. Through its work with the world's tallest animal in a month-long study of "Gravitational Factors Influencing Intra-Vascular Pressure and Blood Flow," the expedition may add important new data to man's knowledge of the circulatory system. Smith, a cardio-pulmonary chemistry technician at the U. S. Naval Hospital, Portsmouth, Va., was the only Navyman in the unique project.

With other members of the party he left New York by air in October, landed at Capetown, South Africa, and motored nearly 700 miles to

Farm Eiland in the Transvaal. There, four newly-captured giraffes were used as "guinea pigs" and Smith worked in a mobile lab helping to analyze the blood of the big animals.

The study was sponsored by the Office of Naval Research and the Bureau of Medicine and Surgery and conducted by Duke University.

Changes in Travel Regulations Clarify Rules on Storage of HHE

Major changes in the storage provisions of the *Joint Travel Regulations* affecting a Navyman's entitlement to storage of household goods at government expense became effective on 1 December.

These changes, which primarily affect temporary storage, will implement existing law and clarify existing entitlements.

Temporary storage in connection with shipment of household goods can be authorized at the *place of origin, in transit,* or *at destination.* Under the new changes, you will be authorized to have your household goods stored at government expense for 90 days or less.

If, because of conditions beyond your control, you are unable to accept the household goods after 90 days of free storage, the transportation officer can authorize an additional 90 days of storage at government expense. Specific situations warranting such authorization are spelled out in the changes. Should the transportation officer disapprove the application after the initial 90-day period, you pay all further charges.

As a general rule, temporary storage is authorized only in conjunction with shipment of household goods. The changes define exception to this rule, and authorize storage without shipment in cases of modification or cancellation of orders. Further storage can also be authorized, if necessary, when you receive further permanent change of station orders upon assignment to a new duty station and have been unable to reestablish residence because of time.

Another major change provides non-temporary storage for making a permanent change of station with temporary duty en route.

To simplify the existing regulations, a table reflecting situations under which entitlements can exist, and the applicable termination dates, is included in the changes.

Another innovation contained in the changes is the authorization of cumulative entitlements, thus permitting a serviceman, whose entitlement to temporary or non-temporary storage under one situation has expired, to have entitlement to storage under another situation.

The changes emphasize the responsibility and authority of the transportation officer in administering the *Joint Travel Regulations.* Acting as agent for the government, this officer has the authority to approve or disapprove applications for storage. He can decide whether to use commercial or government facilities for storage, decide on the location of storage points and assist you in your problems.

"Who do you think you are, Santa Claus? . . . Coming in this gate without showing your I.D. card!"

BOOKS: PLENTY OF SALT FOUND IN THIS MONTH'S SELECTIONS

THE TREND TO ROUSING SEA TALES of World War II, with emphasis on submarines, continues in the volumes selected this month for review. You'll find these, and many more, in your ship or station library.

Through Hell and Deep Water is the third volume of Pacific submarine warfare to be written by VADM Charles A. Lockwood, USN (Ret.) and Col. Hans Christian Adamson, USAF (Ret.). This tells the story of Sam Dealey, the skipper of USS *Harder* (SS 568) who became one of the U. S. Navy's first ace submariners of WW II. It takes him from his boyhood, through his years at Annapolis, to his first and last command of the new sub *Harder* and her part in winning the war at sea. From the first fitting-out moment when Sam assembles and trains his crew until the last vital mission against the enemy the tension mounts. But this is more than just another naval biography. It is primarily a story of *Harder*, her men, and her six patrols. It is a full-size picture of a single famous submarine, her accomplishments, her mechanical complexities and striking power and the daily life aboard.

Some time in June 1944, the cry of "Boarders Away" rang through a U. S. Navy ship for the first time in more than 100 years. It was the occasion of the capture of the German submarine *U-505*, vividly described, together with other phases of submarine warfare in the Atlantic, in ***20,000,000 Tons Under the Sea***, by RADM Daniel V. Gallery, USN. For the then Captain Gallery, skipper of USS *Guadalcanal* (CVE 60), and his Task Force 22.3, the capture of *U-505* was only one phase of the long and dangerous battle against the deadly U-boats. The capture was accomplished only after months of careful planning and under the most hazardous conditions. No member of the boarding party was familiar with submarines, much less the German variety, and no one knew how effectively the sub might have been mined or when it would sink. Once captured, the sub had to be towed more than 1700 miles over the stormy Atlantic to a safe port. For drama and suspense, the tale equals or surpasses many an effort in the fiction field.

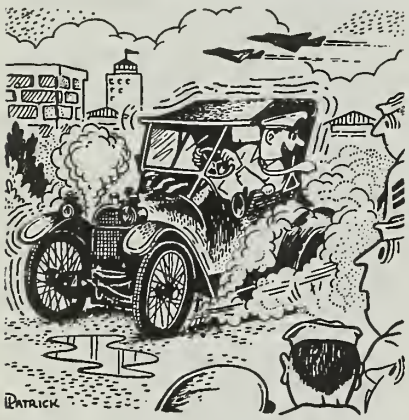
An account of another war, ***This Hallowed Ground***, by Bruce Catton, tells the Union's side of the Civil War and, as such, serves as a companion piece to the earlier *The Land They Fought For*, by Clifford Dowdey. Although anyone but a thoroughgoing Civil War fan might feel that everything has already been said or written on the subject, Catton breathes new life into the familiar tale. The record starts with the "trouble" in Kansas, goes on to the firing on Fort Sumter and the uncertainties in the opening months of the war, and tells of the painful problems of command. All these are well known, but the author breathes into these situations and battles an immediacy and vividness that will live long in your memory.

The martial theme continues in ***Decisive Battles of the World***, by Fletcher Pratt, in which he discusses the development of Western civilization as it has been shaped by the rise and fall of great nations in decisive battles. Expressed in this manner, the theme sounds stiff but Pratt's treatment is not. Writing in an easy, flowing style, he tells of vicious land battles such as those of Vicksburg and Austerlitz; of the mighty sea battles of Trafalgar and Midway. But he cites more than the formal conflicts. He tells of a desperate struggle between the Persians and Arabs in a blinding sandstorm; of an incredible massacre in the Hippodrome at Constantinople, where rioting mobs found themselves fatally encircled by steel-clad Imperial troops. But perhaps the most exciting battle of all is the Battle of Midway where the outnumbered planes of the outnumbered U. S. Pacific Fleet broke through the clouds to sink the crucial four invading Japanese carriers. This type of history can make a fan of you.

The fiction this month goes into past wars, also. In ***Caleb Pettengill, USN***, George Fielding Eliot deals with a young naval officer's devotion to his ships and to his way of life aboard them during the Civil War on the coastal waters off Virginia. Pettengill's loyalties are with the North, but he finds it as difficult as many Southerners to reconsider old friendships and romances when former friends suddenly become enemies and spies.

Caleb Pettengill tells the story of the Civil War from the Union side; ***Our Valiant Few***, by an equally gifted writer, F. van Wyck Mason, tells it from the Confederate Navy viewpoint. *Valiant Few* tells of the attempts to break the blockade around Charleston, and of the many innovations—many of which came startlingly near to working—to carry underwater warfare to the Union ships. There is also the human element strongly played by a local newspaper man, his actress-wife and his no-good brother who turns out to be the villain of the story. However, details of the naval war take precedence over the standard love interest as man after man, ship after ship and engagement after engagement are lost.

NOW HERE'S THIS



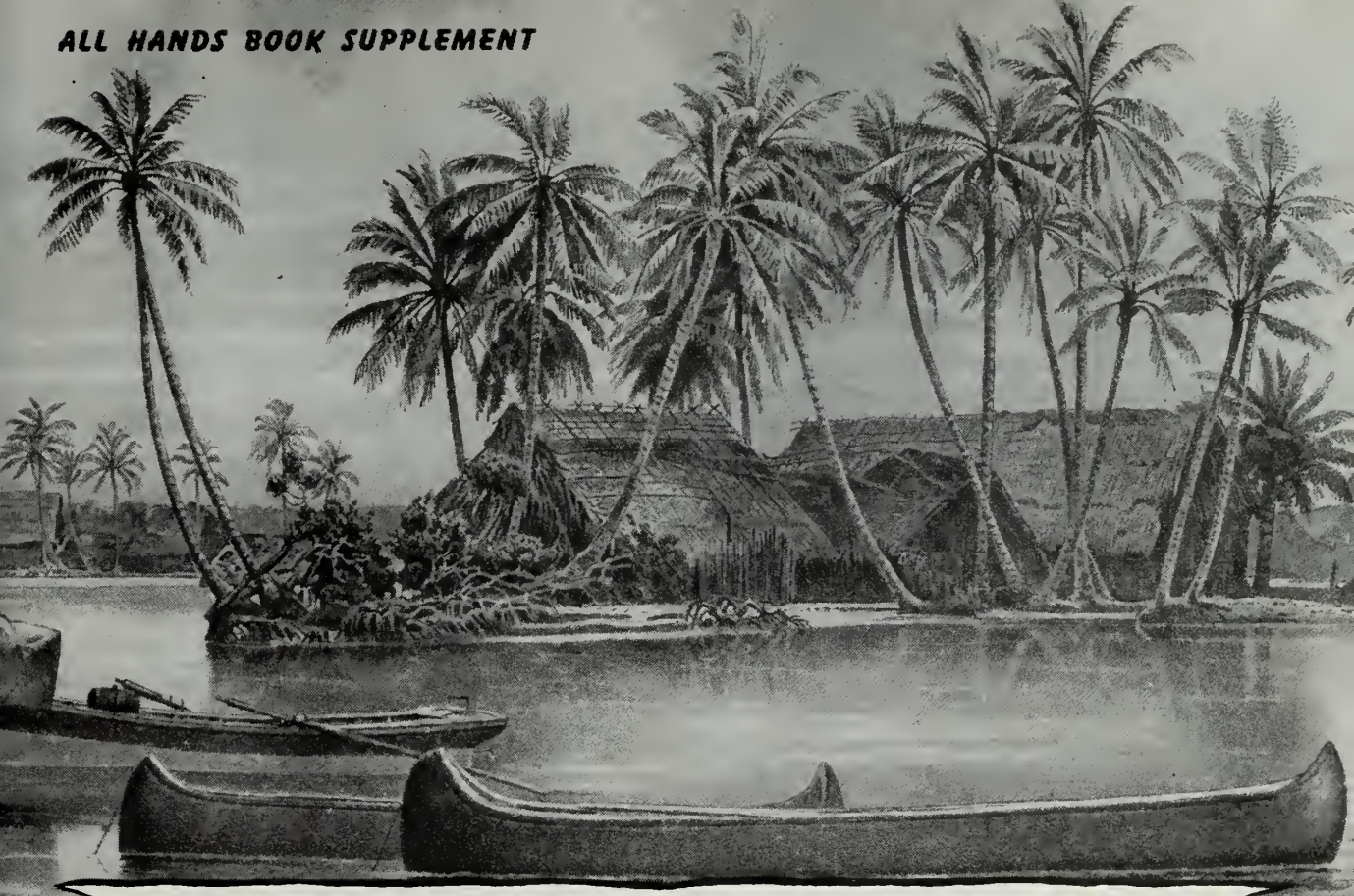
Depreciation in Right Direction

The sound of jet planes, shrieking on the runways or thundering overhead is "old hat" to Navymen at NAS, Quonset Point, R. I., but there's one noise there that always attracts attention.

It's the chug, clatter, roar and sputter of an ancient, four-cylinder automobile that looks as out-of-place on a modern air station as a horse-drawn streetcar would on the Indianapolis Speedway. The antique puddle-jumper is a 1909 Woods Mobilette, one of only three such cars in existence. Its owner is John H. Allison, AKC, USN, who obtained it 22 years ago.

Although the hand-cranked, open sided convertible is a far cry from the sleek cars of today, it has one feature even the newest models can't claim—the older it gets, the more it's worth. Originally the Mobilette sold for $285 (plus 15 bucks for a glass windshield and black top).

Not long ago, Chief Allison turned down an offer of $3500 for it.



The Search for a Canal Site

Nearly 50 years before the United States began construction of the Panama Canal, an assistant surgeon of the U. S. Navy, from USS Preble, accompanied by a seaman, was granted permission to search for a short, easy route from the Atlantic to the Pacific across the Isthmus of Darien (now known as the Isthmus of Panama). It is possible that the findings of this two-man Navy team had a part in the final decision concerning the final route.

Within a very few years after the arrival of the early Spaniards in the New World, they were probing that narrow neck of land between North and South America in an attempt to find a means of easy passage between the Atlantic and Pacific Oceans. These efforts were continued by many of the maritime nations throughout the following centuries until, in August 1914, the Panama Canal was finally open to traffic.

Well-nigh forgotten today is the controversy which raged over the type of canal, the route to be chosen, and under whose authority it should be operated. For years before construction actually started, the question of an Isthmian canal became the subject of diplomacy and conflict of interests between its potential users. Finally, in 1879, an International Congress for Consideration of an Interoceanic Canal met in Paris to work out some sort of solution. This led to the first attempt, by France, to conquer the tremendous engineering problems involved in the construction of the canal. Ten years later, in 1889, their effort collapsed and the Isthmus returned to the jungle.

In 1889, after more than half a century of exploration, including a number of naval expeditions, the United States started serious investigations by means of an Isthmian Canal Commission, under the direction of RADM John G. Walker, USN. Finally, in 1904 the monumental job of building the canal was begun.

Today, the present route is assumed by most of us to be the only logical and feasible choice. It wasn't always this way. Spain had early discovered four good possibilities: Tehuantepec, Nicaragua, Panama, and Darien Atrato, and each of these, over later years, had received serious consideration and earnest supporters.

On the following pages is an account of one of the early exploratory trips by Navy Surgeon W. C. Caldwell, who was accompanied by Seaman William H. Parker. It is preceded by his letter requesting authorization for the expedition.

From *Exploration of Isthmus of Darien, 1859*, a notebook of W. C. Caldwell, Assistant Surgeon, USN, made available through the courtesy of the Navy Section, National Archives, Washington, D. C.

NATIVE HUTS of explorer's day were a far cry from the travelers' accommodations to be found in Panama now.

"DURING MY LATE VISIT to the Rio Darien & Savana as one of the party sent to obtain specimens of wood suitable for ship-building, I was much impressed with the importance and practicability of an Interoceanic ship canal from the Rio Savana to the Atlantic. I obtained much valuable and reliable information in relation to this route from Messrs. Andrew Hasack and Robert Nilson who have lived at Chapigana on the Rio Darien for the last 10 years.

"It is their opinion that the isthmus has never been crossed from ocean to ocean and also from information collected during many years from Indians, traders, hunters, and others who have visited the interior north of the near waters of the Chucunague, they have no hesitation in pronouncing that there exists a practicable route for a ship canal from the Gulf of San Miguel Savana to Fuerte del Principe (a few miles above which the tide reaches), thence northerly (about ½ by E.) over low ground to the Atlantic to Caledonia Bay, or a little north of it.

"I conversed with Manuel Maria, a hunter and guide, who accompanied Capt Prevost when he crossed in a direct NNE to the Atlantic and he stated that he climbed a tree and beheld the Atlantic in the distance. The country was in a lower level to the northward route and no apprehensions need be felt for the attacks of the Indians. The whole country is low, well wooded, watered and abounding with game, and he states that a small party can cross from the Savana to the Atlantic and return in 10 days without fear of Indians or disease. In case of necessity the whole route could be traced in one day.

"In view of the importance of demonstrating the feasibility or impossibility of constructing a ship canal at this point and anxious to anticipate any survey or exploraton by any government but our own, I most respectfully ask permission to be absent from the ship for a sufficient length of time to make a hasty exploration of the country.

"I would be pleased to have one or more men accompany me, and also that a small quantity of provisions be served to last the party until our return. Further than this I ask no assistance from the ship and will rejoin her as soon as possible, and if she sails before my return, at my expense. Hoping that you will accede to my request, which I have made after much reflection I have the honor to be your most obdet servant.

"It is proper that I should here state that especial credit for suggesting the route should be given to Mr. Andrew Hasack of Rio Darien. This gentlemen is a native of Scotland."

WITHIN A FEW DAYS after my application to explore the route, I received from Com Marvine a leave of absence for three weeks.

I found it impossible to obtain an accurate barometer, correct charts or maps of the interior. I provided myself with "Autoptic Map of the Isthmus of Panama and Darien, New Orleans, 1807," a small government report of Dr. Culler's work, as well as two pocket compasses which were carefully compared with the ship's. A very intelligent and active seaman William H. Parker was selected to accompany me.

On Saturday, March 28th 1859 at 2 pm, we left Panama in a large canoe and arrived at Chapana on the Rio Darien about 10 miles above the mouth of the Rio Savana on Tuesday. The Savana emptied its waters into the Darien within two miles of Boca Chica and the united streams enter by the deep passages of Boca Grande and Boca Chica into the Bay of San Miguel—a fine and spacious harbor which would accommodate the commerce of the world, with a safe anchorage.

Within a week, in company with Mr. Hasack, I visited Molinica, Panogana (an Indian Village) and Tarisa, which are situated on the Darien and Chucunagua rivers 30 or 40 miles above Chapguna. A letter to Mr. Manuel Mabica, Alcalde of Tavisa obtained the services of an Indian interpreter and his cousin, a lad of 14.

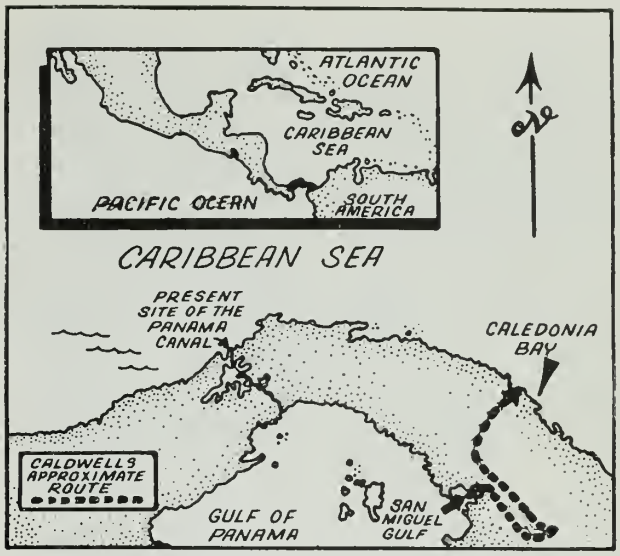
IN MOLINICA, I met with an intelligent Indian upwards of 80 years of age, but in the full exercise of his faculties, who distinctly recollected that when he was a boy his father, with a body of 300 Indians from Miroguana, were employed by the Spaniards to open a road 30 *varas* wide from Principe to Caledonia Bay which was accomplished, altho with much difficulty as they had to contend against the hostility of the Indians of the interior. The Indians from the head waters of the Chucunagua frequently visit Tarisa to trade. A party of them had recently been in Tarisa and stated that the Indians who had been engaged in the murder of Capt Prevost and men had been arrested by the head chief and punished by shaving their heads and lacerating their bodies, a perpetual disgrace among the Indians, for those who perpetrated that outrage. This had been done to propitiate the anger of the English, and it was understood that a large force would be sent to chastise the tribe. One of the offenders thus punished was with the party which had visited Tarisa. It is believed that those Indians would not prove hostile to any future explorers.

On Sunday, at 5 am we left Chalyana in a canoe for Fuerte del Principe on the Savana. The native Negroes have so much fear of the Indians of the interior that I could not prevail on more than one (Rusilio) to accompany me. I gave them to believe that I was going to examine the medicinal plants of the Isthmus and also

would endeavor to cross to the Atlantic if possible. The Savana is a fine river about three miles wide with 10 fathoms at low water at its mouth. It is skirted by a range of hills 300 feet high, well wooded, to a group of three islands about 10 miles from its mouth, where it is only about 1½ miles wide with six fathoms at low water.

On the morning of the 6th of April (Monday) we arrived at Principe, on the right, or west, bank of the Savana. The fort was abandoned by the Spaniards in 1790 and at present no vestige of it remains excepting an old Spanish *botiga,* or earthern water jar which was found by my interpreter near the fresh water ravine. The site of Principe is overgrown with bushes, but a rancho built by wood choppers was found near it and used as our camp. Principe is 20 miles from the mouth of the Savana.

The tide reaches two or three miles above, but I determined to start from this position, as there was some difficulty in ascending higher on account of ledges of rock in the course of the river. The tide rises here about 10 feet; at low water there is only about five feet, the river is about 25 yards wide.



'NO APPREHENSIONS need be felt for the attacks of Indians,' Caldwell said in describing route he followed.

EARLY ON THE MORNING of the 7th, we started on a N½E course by compass, hacking the undergrowth and blazing the trees as we went. In order of march, Parker went first, with a compass to lead the natives, then followed the interpreter, Negro and boy using their machetes in cutting a path by which we could readily retreat as rapidly as we could comfortably walk. I came last with my compass to correct the first if necessary. Each of the party (except the boy who had a flask of water) carried a pack of about 20 pounds of provisions, ammunition, india rubber cloth, trinkets for the Indians, etc., in addition to his gun and machete.

This day we crossed the Savana four times, by wading, in as many miles. This was in the fresh water portion of the river, which has a bed about 20 yards wide, but the stream of water is very insignificant. We estimated the whole distance and traveled this day at eight miles. It was probably less. In the morning we crossed the Picodura then hacked our way through a nearly grown over path bearing NNE, by compass, which was supposed to be Capt Prevost's route of December 1853.

On a tree growing on the left bank of the river when we crossed the first time, was found marks with a knife "W. Jones, Dec 19 185— Virago." The surface of the country traveled from Principe to our camp at night was level, or very gently undulating. The last mile was slightly ascending and we believed had not a greater elevation of more than 160 feet. The ground was densely covered with an undergrowth of various species of palms, vines and canes with a few large trees, and numerous dry ravines ran tortuously in every direction. The last time we crossed the Savana it was a very small body of water in a bed about 12 yards wide formed by the union of two ravines which I suppose to be the headwaters of that river.

OUR CAMPING was a very simple operation. We built a fire near a pool of water if possible and spread a few palm leaves for our beds and wrapping ourselves in our weather coats were soon fast asleep. We were aroused occasionally by the growls of tigers near us or the heavy tread of tapirs, which were easily driven off by our cries or by making a blazing fire.

On the 8th, we crossed twice an unknown river running WSW. It was larger than the Savana at Principe. From this time until the return of the party to this point we suffered very much from want of water. Here and there a stagnant pool of water was found. Frequently we endeavored to end our thirst by sucking the watery sap of vines or the offensive water in a hollow bamboo stalk.

On one occasion, after eating a small quantity of an unknown but agreeable fruit, its after effect proved very unpleasant, irritating the mouth and throat, in my case, causing a slight hemorrhage from the mouth. Fortunately,

DUGOUT CANOES AND THATCHED HUTS lined water's edge in typical coastal village of Panama 100 years ago.

PANAMA PANORAMA—Clearings like this were almost 'wide open spaces' compared to country expedition saw.

no worse consequences followed. Occasionally we were compelled to leave our course to follow a dry ravine, for several miles, to search for water.

The natives would not consent to our shooting game, which was abundant near the water, for fear of attracting the attention of the Indians and we were therefore compelled to live on the bread and pork which we carried. Wild turkeys somewhat different from those of the U. S., pheasants, deer and peccaries were abundant this day. The course was N by E by compass. About six miles.

On the 9th, we made about 6 miles. Ticks and chiggers were numerous and excessively troublesome. The first find their way to every portion of the body and cause constant itching; the latter burrows beneath the skin of the feet, depositing their eggs which finally caused painful ulcers. Schools of black howling monkeys were seen and rendered the forest vocal with their discordant concerts. On the 10th, two reports of firearms were heard, which the natives said were made by Indian hunters. Parker climbed a tall tree and beheld the Atlantic Ocean NE through a gap about 12 miles distant, in the coast ranges, with the horizon beyond it.

White-faced monkeys were numerous, some, females probably, had their young clinging affectionately to their necks. Sometimes they approached very near, chattering and following the party, throwing sticks and leaves at us. This day we made about five miles. N by E ½ E by compass.

ON THE 11TH, the natives were very much exhausted by their labor in cutting through the undergrowth and all suffered for want of water, which was very scarce. They informed me that they would not go further than the night's camp, and that they believed we were very near the Atlantic side. Estimate the day's travel at six miles.

Early on the morning of the 12th, the natives left me to return to their home. I used every argument and even threats to induce them to remain, but Rosilio had sufficient influence to persuade the Indian interpreter to leave me and return with him. Soon after they left, Parker and I proceeded on our course, marking the route as usual with one machete.

During the morning, Parker again saw the Atlantic to the NE from the top of a tall tree. This proved to be the hardest day's work of all, as there was a dense thicket of prickly palms and low growth, through which we were compelled to hew our way. We only made about 4 miles up to 5 p.m. In addition to this. no water had been found. The provisions were nearly expended and no game was seen and both of us were very much exhausted and suffering, especially from thirst. Two distant reports of fire arms were heard within a mile or mile and half of us.

At 4 pm I directed Parker to ascend the tallest tree near us to survey our route. He reported a low level tract of land on our course N 20° E., the same gap in the coast range through which he had seen the Atlantic on the 10th, now distant about five miles, but was unable to obtain the same view, as this was prevented by the overlapping of the mountains. I attempted to climb the tree myself but was so worn out that I was unable to accomplish it.

Here I called a consultation with Parker, and after considering the circumstances, the want of water and food, scarcity of game, our exhausted conditions and the warning of the reports of the guns of the Indians, and believing that we had already gained sufficient and reliable knowledge of the route, we reluctantly determined to return.

I believe that we traveled nearly 30 miles making a course of NNE true, and that we were within five miles of the northwestern limits of Caledonia Bay (or a little north of it, as Capt Prevost's course was the most direct one from Principe to Port Escopes) of this I cannot be sure on account of the unreliability of the charts.

The greatest elevation crossed, I suppose to be about 160 feet and it is within eight miles of Principe. Since my return to this ship I have read Capt Prevost's report in which he states that he found (by instruments) 170-foot altitude, within 6 2/4 miles of the Savana and from this point from the river, our courses were not very far apart. From this point to the terminus of my exploration, the land is level, tortuously marked by the dry beds of small branches and in some places there are flats which are apparently marshy in the rainy weather. Few large trees were seen, but an intricate undergrowth covered the surface.

MY EXPERIENCE is far different from that of Capt Prevost and sustains the opinions of the Indians, that the country is lower to the north of his track. He speaks of mountains, waterfalls, torrents and much large timber.

I only crossed a gently undulating country the first day a distance of less than eight miles, and then low or level

for 18 or 20 miles, to the terminus of my exploration, with very little large timber and only shallow, dry ravines, which by the tortuous course show that the country is generally level.

I feel assured that during the hurried observations thus made, several facts of importance have been ascertained: 1) that the summit level of a route from Principe northly to the Atlantic is within eight miles of the Savana and would not prove impracticable to engineering skill in constructing a ship canal; 2) that there is a lower tract of land from the Rio Savana to the Atlantic that has been examined by any previous observers; 3) that there is a gap in the Atlantic coast range near the northwestern limits of Caledonia Bay.

In reference to the first I well know that it is impossible to judge of the altitude by the eye alone with any degree of accuracy, but from the fact that Capt Prevost found only 170 feet by instrument within a short distance of the same position and the same surrounding country, I incline to the opinion that the altitude is no greater than he estimates it.

As to the second, it has been seen that we traveled not less than 25 miles over a level or descending country towards a gap in the Atlantic range. Also that we returned over our whole course in less than 20 working hours, carrying our heavy packs.

As to the third, I beg leave to quote from Osborne's report, London, August 28, 1852, which substantiates the fact and also inclines to the belief that the highest altitude is nearer the Pacific than has been supposed.

After crossing the Atlantic range at Caledonia Bay at an elevation of 276 feet, Mr. Osborne beheld a "flat extensive plain to the S.W. in the direction of the Gulf of San Miguel as far as the eye could reach." He and his assistants were forced by the Indians to follow. "They led us," he continues, "fortunately along the course of the river, which gradually assumed a more easterly direction, winding around the hills that overlapped each other, until we reached a village at its mouth in Caledonia Bay.

We were thus singularly assisted in our object by the discovery of a passage through the range of the Cordilleras which had hitherto been supposed to be unbroken. Our great object had, however, been obtained in finding that the Cordilleras which appeared from the sea a continuous range, had an intervening valley and that the summit between the two oceans must be in the center of the Isthmus, if not nearer the Pacific coast."

Returning, we reached Principe in the morning of the 16th. At the same time we met with the Indian interpreter and boy, who had been ordered to return to my assistance.

LIMON BAY—Canal should end here, said one of recommendations submitted before selection of present site.

Explorations of the type made by Dr. Caldwell and Seaman Parker contributed in no small part to the transisthmian canal project. It was from research and surveys made by interested personnel that the canal program developed public interest and final selection of an approximate site could be made.

More on the Panama Canal project will be covered in future book supplements.

CANAL TODAY is one of world's most important waterways. Here, sailors watch Navy tanker passing Gatun locks.

TAFFRAIL TALK

THERE'S AN APPROPRIATE postcript to all this talk about the pros and cons of reenlistment in the example set by William D. Matott, ADC, USN, Fleet All Weather Training Unit, Pacific. Now 67 years old, he recently requested a two-year extension of enlistment. Reason given? He wanted to complete 40 years of naval service before retirement. That's practically two Navy careers in one lifetime.

★ ★ ★

Ernst Schneider, AN, of NAS Moffett Field, Calif., has a different reason for his enlistment. Just like home, he says, and well it might be. Ernst and all his nine brothers have served or are now serving in the Navy. Robert, the oldest, signed up in 1940 and, since that time, there's always been at least one Schneider—of the Glenbuelah, Wis., Schneiders, that is—in the Navy.

"There's really not much difference," says Ernst. "I've always

had older brothers to tell me what to do and help me when I needed it. A little noisier at home, I guess."

But somebody's slipping. Why aren't Ernst's five sisters signed up as Waves?

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Here's a chance for you to interpret the news yourself. We have discovered that the percentage of E-7s in the Navy is higher than in any other service. The magic number is 82 CPOs for every 1000 enlisted personnel. There are 49 E-7s per 1000 in the Army and 67 E-7s per 1000 in the Air Force. The Marines number 42 E-7s per 1000. The way we figure it, you have a pretty good chance to make chief in the Navy. How do you see it?

★ ★ ★

People can be pretty nice at times. Following nothing but the dictates of his own convictions, a certain James J. McMullen, an aircraft mechanic who lives in Santa Monica, Calif., took it upon himself to offer a "Salute to the Navy" as a part of this year's Navy Day.

Expressing the warmest admiration for the Navy and its men, at his own expense he had his 600-word Salute printed and mailed to all active ships, to SecNav, UnderSecNav, CNO and VCNO as his own personal Navy Day tribute.

"It must be a poor-spirited American whose veins do not tingle with pride when he reads of all the heroic deeds of you men of the Navy," says Mr. McMullen, in part.

That's what we think, too.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau should be kept informed of changes in the number of copies required.

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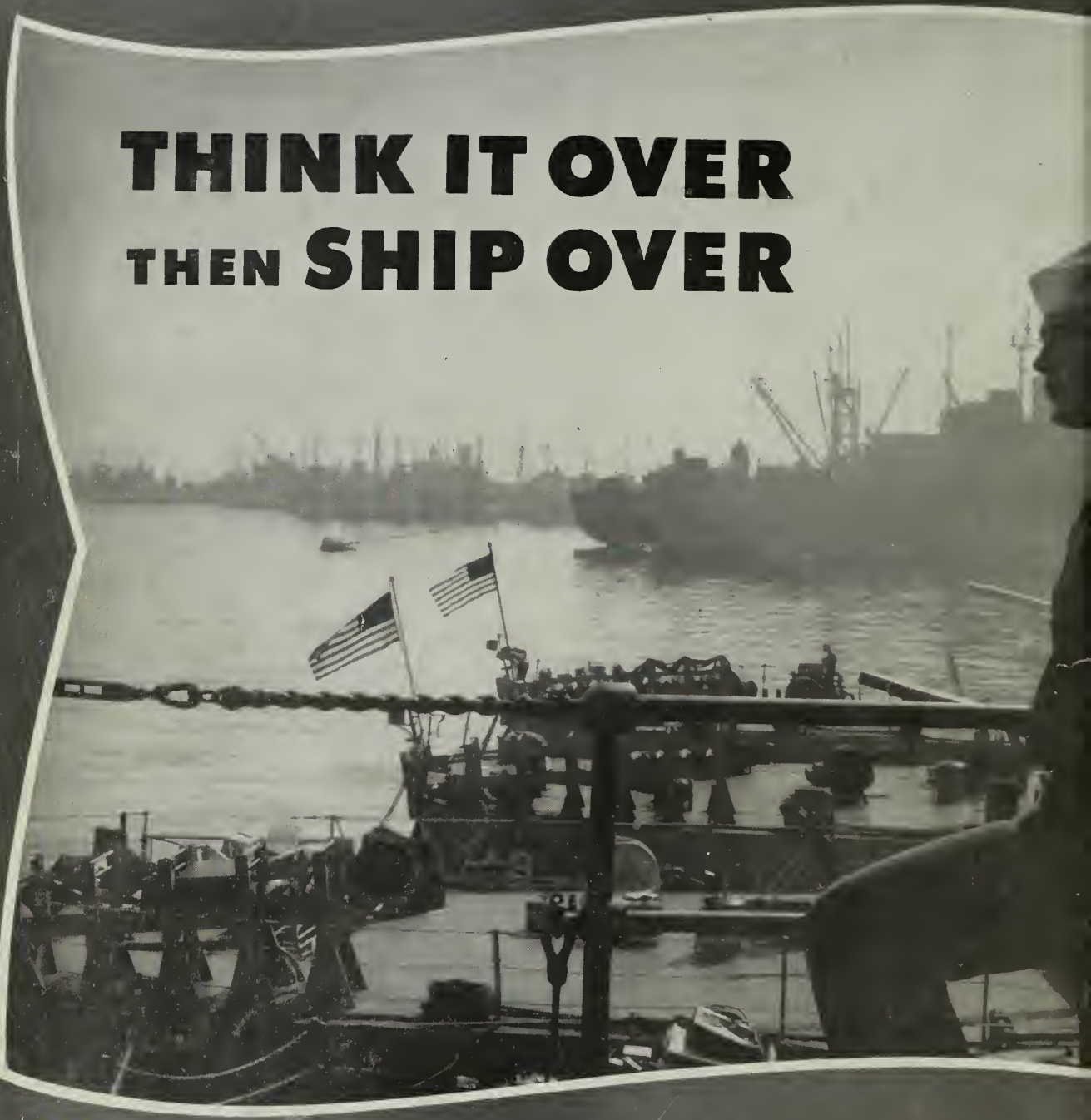
• AT RIGHT: TO SHORE—Coxswain at tiller of motor launch heads toward Fleet landing at Long Beach with liberty party from USS *Homul* and her nest.

THINK IT OVER THEN SHIP OVER



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